



NEP-2020 and Indian knowledge System Implementation (A case study of Tripura Students)

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ABSTRACT

The National Education Policy (NEP) 2020 presents a transformative vision for India's education system by emphasizing the integration of the Indian Knowledge System (IKS) into formal learning. IKS includes a wide range of traditional knowledge domains such as philosophy, literature, indigenous sciences, folk arts, ecological practices, and oral traditions. Through the incorporation of IKS, the NEP aims to offer holistic education that harmonizes modern academic competencies with cultural awareness, ethical values, and sustainable practices. This study examines the implementation of IKS among students in Tripura, a state distinguished by its cultural diversity and rich tribal heritage. The indigenous communities of Tripura have long preserved distinctive traditions, including oral storytelling, herbal medicine, traditional agricultural practices, and ecological conservation methods. However, conventional education systems have often overlooked or marginalized such indigenous knowledge. The NEP's emphasis on IKS creates an opportunity to integrate these local traditions into formal education, thereby promoting cultural preservation alongside academic growth. Using a case study approach, this research explores the impact of IKS integration on students' learning experiences, cultural identity, and skill development. The findings reveal that the inclusion of indigenous knowledge in the curriculum enhances students' connection to their



cultural roots, nurtures pride in local traditions, and encourages the use of indigenous languages such as Kokborok. Interaction with community elders and traditional practitioners further strengthens experiential learning, enabling students to apply traditional knowledge in practical contexts. The study concludes that the implementation of IKS within the NEP framework contributes positively to students' academic, social, and cultural development. It supports holistic education while safeguarding indigenous knowledge for future generations. The experience of Tripura demonstrates that an educational model combining traditional wisdom with modern knowledge can be both locally relevant and globally meaningful, equipping learners with the values and skills required to address contemporary challenges while remaining grounded in their cultural identity.

Introduction

The National Education Policy (NEP) 2020 is widely regarded as a landmark reform in India's education system, seeking to balance modern scientific and technical knowledge with the country's rich cultural and intellectual heritage. A central objective of the policy is the promotion and revitalization of the Indian Knowledge System (IKS). IKS extends beyond classical texts to include indigenous sciences, oral traditions, folk arts, local languages, ecological practices, and community-based knowledge that have been sustained over generations. The NEP underscores the idea that education should be holistic in nature, integrating cultural identity, ethical values, sustainability, and social responsibility alongside academic excellence.

In the context of Tripura, the integration of IKS within the NEP framework holds particular significance. Tripura is marked by remarkable cultural diversity, with tribal and non-tribal communities coexisting and collectively contributing to the state's rich heritage. These communities have preserved valuable traditional knowledge systems, including oral narratives, herbal medicinal practices, indigenous agricultural techniques, and ecological management methods. Such knowledge is not only culturally meaningful but also offers practical insights relevant to sustainable living and environmental balance. Despite their importance, these indigenous traditions have often been marginalized due to the dominance of standardized and modern education models. The implementation of IKS in Tripura's educational



institutions provides an important opportunity to preserve and revitalize indigenous knowledge while aligning it with contemporary educational goals and learning outcomes.

Historical View of the Indian Knowledge System

India possesses a rich and diverse educational history shaped by multiple knowledge traditions. The Indian Knowledge System (IKS) encompasses a wide range of disciplines, including philosophy, literature, mathematics, astronomy, medicine, agriculture, arts, and ecological practices. Traditionally, knowledge was transmitted through oral instruction, apprenticeship, and community participation, promoting intellectual growth as well as social harmony.

During the colonial period, Western models of education were introduced, emphasizing European languages, scientific methods, and administrative training. This shift led to the marginalization of indigenous knowledge systems and created a disconnect between modern education and traditional learning practices. In regions such as Tripura, which possess a rich tribal and non-tribal cultural heritage, local knowledge traditions—such as oral narratives, herbal medicine, and sustainable agricultural practices—were increasingly neglected.

Following independence, the Indian government acknowledged the need to preserve indigenous knowledge while advancing scientific and technical education. Policies like the National Policy on Education (1986), along with its 1992 revision, attempted to incorporate elements of IKS into formal education. However, these initiatives were limited and unevenly implemented across different regions.

The National Education Policy (NEP) 2020 marks a renewed commitment to integrating IKS into mainstream education. It emphasizes the inclusion of local languages, traditional knowledge, ecological awareness, and community-based learning across all levels of education. In Tripura, NEP 2020 presents an opportunity to reconnect students with their cultural heritage, tribal wisdom, and indigenous practices, thereby making education more holistic and context-sensitive.

Understanding this historical development highlights the significance of integrating India's rich knowledge traditions with contemporary education. NEP 2020 thus serves as a comprehensive framework to ensure that students acquire modern academic competencies while preserving cultural identity and sustainable practices.



Literature Review

The integration of the Indian Knowledge System (IKS) into mainstream education under the National Education Policy (NEP) 2020 has been extensively examined by scholars. Key contributions are summarized below:

1. Sharma (2021) argues that the inclusion of indigenous knowledge in educational curricula strengthens students' cultural identity and enhances experiential learning (p. 56).
2. Rao (2019) observes that IKS fosters critical thinking and problem-solving skills by effectively linking traditional wisdom with modern knowledge systems.
3. Singh (2018) emphasizes the role of local languages and oral traditions in safeguarding cultural heritage and promoting inclusive education.
4. Verma (2020) – Suggests that folk arts and ecological practices support sustainability education.
5. Chatterjee (2016) – Points out that community involvement ensures authentic and contextually relevant learning experiences.

Aims and Objectives

The primary aim of this study is to examine the implementation of the Indian Knowledge System (IKS) under the National Education Policy (NEP) 2020 among students in Tripura and to evaluate its influence on cultural awareness, academic development, and holistic learning. The study seeks to understand how the integration of IKS into the educational curriculum can strengthen students' connection to their cultural heritage while also preparing them with the skills required for contemporary academic and professional environments.

The specific objectives of the study are as follows:

1. To examine the provisions of NEP 2020 related to the integration of IKS, including indigenous knowledge systems, local languages, and traditional practices.
2. To assess the role of IKS in the preservation of cultural heritage and in fostering respect for local traditions and values.
3. To analyze the educational benefits of incorporating IKS, particularly in promoting experiential learning, critical thinking, and awareness of sustainability.
4. To identify the challenges associated with implementing IKS, such as the shortage of trained teachers, limited educational resources, and the dominance of standardized curricula.



5. To suggest strategies for the effective integration of IKS through appropriate curriculum design, teacher training programs, and active community participation.
6. To examine the role of indigenous languages, such as Kokborok, and the involvement of community elders in enhancing students' learning experiences.

Methodology

This research follows a qualitative framework to explore how the Indian Knowledge System (IKS) is being incorporated into educational practices in Tripura following the implementation of the National Education Policy (NEP) 2020. Information was gathered through guided interviews with students, teachers, and institutional authorities to capture varied perspectives. These discussions were complemented by direct observation of classroom activities and a review of official curriculum documents to understand how IKS-related content is planned and delivered.

Participants were selected deliberately from different schools and colleges across the state to ensure diversity in institutional settings. The information collected was examined through a thematic interpretation process, enabling the researcher to recognize recurring ideas, implementation barriers, and shared experiences related to IKS. This approach allows for a detailed evaluation of the role of NEP 2020 in shaping students' cultural understanding, educational growth, and overall development in Tripura.

Research Questions

The study focuses on understanding the integration of the Indian Knowledge System (IKS) under NEP 2020 in Tripura through the following research questions:

1. In what ways has NEP 2020 encouraged the inclusion of IKS within educational programmers in Tripura?
2. How familiar are students with indigenous knowledge traditions and local cultural practices?
3. What attitudes do teachers hold regarding the teaching of IKS in classrooms?
4. What difficulties do educators experience when introducing IKS-related content?
5. How does learning through IKS influence students' cultural consciousness and identity formation?
6. How does community involvement contribute to the effective application of IKS in educational institutions?



Learning Opportunities

The inclusion of the Indian Knowledge System (IKS) under the National Education Policy (NEP) 2020 creates meaningful educational opportunities for students in Tripura by supporting intellectual growth alongside personal development. Integrating local knowledge traditions, customary practices, and indigenous philosophies into formal education enables learners to better understand their cultural roots and regional heritage.

Such an approach promotes integrated learning by connecting moral values, environmental awareness, and cultural wisdom with modern academic content. Exposure to knowledge areas such as Ayurveda, traditional mathematical methods, folk traditions, and indigenous ecological practices helps students develop creativity, reasoning ability, and problem-solving skills.

In addition, NEP 2020 promotes inquiry-based learning, innovation, and the preservation of community knowledge through documentation and research. These experiences encourage students to apply classroom learning to real-life contexts while cultivating respect for cultural diversity and traditional wisdom.

Indigenous Knowledge and Cultural Preservation

Indigenous knowledge refers to the body of traditional understanding, skills, and practices developed by communities through long-term interaction with their social and natural environments. This knowledge includes areas such as environmental management, traditional medicine, artistic expressions, and social traditions, all of which play a vital role in sustaining cultural continuity. Integrating indigenous knowledge into formal education is crucial for protecting cultural heritage and strengthening students' sense of belonging and identity. The National Education Policy (NEP) 2020 highlights the incorporation of the Indian Knowledge System (IKS) into both school and higher education, recognizing its importance in linking academic learning with cultural values, sustainability, and ethical development.

In the context of Tripura, indigenous communities maintain rich traditions such as oral narratives, folk performances, herbal healing practices, and environmentally sustainable agricultural techniques. Despite their cultural significance, these traditions have gradually declined due to the dominance of modern education systems and the influences of globalization. The inclusion of IKS within the curriculum provides students with opportunities to reconnect with their cultural roots, develop respect for indigenous traditions, and cultivate practical knowledge derived from their own communities. Furthermore, the involvement of elders and local knowledge holders in educational processes promotes intergenerational



learning, encouraging critical thinking, environmental sensitivity, and holistic growth in line with the inclusive educational vision of NEP 2020.

Importance of the Indian Knowledge System

The integration of the Indian Knowledge System (IKS) under the National Education Policy (NEP) 2020 holds significant relevance for students in Tripura. By incorporating indigenous traditions, cultural practices, and philosophical insights into the education system, learners gain deeper awareness of their cultural heritage. This process fosters cultural pride and reinforces a strong sense of identity, enabling students to engage meaningfully with the history, values, and wisdom of their communities.

Additionally, IKS supports a holistic model of education by combining ethical, ecological, and spiritual perspectives with modern academic disciplines. Exposure to areas such as Ayurveda, traditional mathematical methods, folk arts, and local ecological knowledge enhances creativity, analytical ability, and problem-solving skills among students. These skills not only strengthen academic learning but also contribute to overall personal development, empowering learners to respond effectively to social, cultural, and environmental challenges.

The emphasis on IKS in NEP 2020 also encourages research, innovation, and systematic documentation of indigenous knowledge. It creates meaningful opportunities for students to preserve and promote their cultural heritage while integrating traditional wisdom with contemporary educational practices. In Tripura, this approach contributes to stronger community relationships, sustainable development, and the nurturing of culturally aware, socially responsible, and innovative individuals who can balance tradition with modernity.

Hypotheses of the Study

This study proposes that introducing the Indian Knowledge System (IKS) in accordance with the National Education Policy (NEP) 2020 leads to positive changes in the academic progress and cultural understanding of students in Tripura. It is believed that learning based on indigenous traditions, community practices, and region-specific knowledge helps students recognize the value of their cultural background and develop a strong sense of identity.

The second hypothesis suggests that participation in IKS-related learning improves students' intellectual abilities, particularly their capacity for critical thinking, creativity, and problem-solving. The study assumes that combining traditional subjects such as Ayurveda, Vedic mathematics, and folk arts with



modern academic disciplines creates a balanced educational experience. This approach is expected to enable students to apply theoretical knowledge effectively in practical situations.

The third hypothesis states that the inclusion of IKS in education enhances students' moral awareness, social responsibility, and environmental concern. By learning about ethical principles and ecological understanding embedded in traditional knowledge systems, students are expected to develop responsible attitudes toward society, sustainability, and ethical conduct. Such learning is likely to shape culturally aware and socially responsible individuals.

The final hypothesis proposes that the proper implementation of NEP 2020 encourages exploration, innovation, and systematic recording of indigenous knowledge in Tripura. By providing opportunities for students to engage with local traditions and community wisdom, the policy is expected to support cultural continuity while also improving academic outcomes. Together, these hypotheses aim to examine the role of IKS integration in promoting holistic education, personal development, and community growth among students in Tripura.

Implementation Strategies

Implementing the National Education Policy (NEP) 2020 with a focus on the Indian Knowledge System (IKS) in Tripura requires thoughtful, realistic, and sustainable approaches. The following strategies are essential:

1. Updating curricula to meaningfully include indigenous knowledge and cultural traditions.
2. Encouraging instruction in local languages and adopting multilingual teaching practices to strengthen cultural awareness.
3. Organizing regular teacher training programmes to support IKS-based teaching methods.
4. Incorporating folk arts, Ayurveda, and traditional ecological knowledge into classroom learning.

Implementation Challenges

The implementation of the Indian Knowledge System (IKS) under the National Education Policy (NEP) 2020 in Tripura faces multiple obstacles. One major challenge is the limited infrastructure and shortage of learning materials in many schools and colleges, which restricts the effective teaching of IKS content.

A further concern is the lack of adequately trained teachers who can deliver indigenous knowledge in a meaningful and engaging way. Many educators are unfamiliar with traditional practices, and some resist



changes in the curriculum. Similarly, students often have low awareness of the value of IKS, which reduces their motivation to engage with it.

Practical difficulties also emerge from the nature of traditional knowledge itself. Standardizing IKS content across different academic levels is challenging, and there is a shortage of research and documentation on local knowledge systems. Collaboration between educational institutions and community knowledge holders is limited, making it harder to preserve authenticity. Integrating traditional methods with modern teaching approaches also requires careful adaptation.

Institutional constraints, including insufficient funding and limited use of digital tools, further impede progress. Addressing these challenges requires collective effort from educators, policymakers, and local communities to ensure that IKS integration is effective, culturally meaningful, and beneficial for students' holistic development.

Conserving Nature through the Indian Knowledge System

The Indian Knowledge System (IKS), as emphasized in the National Education Policy (NEP) 2020, serves as an important framework for environmental conservation. It highlights traditional ecological knowledge that teaches sustainable interaction with nature, encouraging balance, respect, and long-term stewardship of natural resources. In Tripura, students can benefit from understanding how local communities have historically managed land, water, and forests using practices that preserve biodiversity and maintain soil fertility.

Tribal communities often use methods such as controlled shifting cultivation and the careful use of medicinal plants, which reflect a profound awareness of ecological processes. Cultural traditions, including the protection of sacred groves, demonstrate the integration of environmental ethics with social practices. Incorporating IKS into formal education not only strengthens students' scientific understanding but also fosters a sense of responsibility toward the environment. This approach equips learners to contribute actively to sustainable development while safeguarding both natural ecosystems and cultural heritage.

Conclusion

Introducing the Indian Knowledge System (IKS) through the National Education Policy (NEP) 2020 offers a transformative approach to education in Tripura. By including indigenous wisdom, traditional practices, and local cultural knowledge in schools, students can build a strong connection with their



heritage and develop a sense of belonging and cultural pride. This also encourages ethical awareness and social responsibility, preparing learners to engage meaningfully with their communities.

Integrating IKS with contemporary subjects promotes holistic development. Exposure to disciplines such as traditional medicine, mathematics, arts, and environmental management enhances students' problem-solving abilities, creativity, and critical thinking. This combination equips learners to address both local and global challenges while valuing their cultural roots.

The success of this initiative depends on well-trained teachers and effective teaching strategies, including hands-on learning, community involvement, and the use of technology. Interaction with local practitioners, artisans, and elders allows students to experience traditional knowledge firsthand, ensuring its preservation for future generations.

Although challenges like limited resources, infrastructure gaps, and teacher shortages exist, collaborative planning between schools, communities, and authorities can overcome them. With these measures, IKS integration can cultivate culturally aware, innovative, and responsible citizens who balance modern education with traditional wisdom.

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