



Educating Teachers: Holistic Development through Indian Knowledge Systems

Dr. Rupali Shewale

Assistant Professor, SNDT College of Education, Pune

Abstract

Indian Knowledge Systems (IKS) represent an untapped pedagogical resource that aligns deeply with the vision of holistic education articulated in the National Education Policy (NEP) 2020. This study explores the integration of IKS into teacher education as a mechanism for building capacity in a comprehensive, value-oriented, and culturally contextualized manner. Using a qualitative case study methodology, data were collected through semi-structured interviews with teacher educators, content analysis of policy documents, and critical review of selected institutional practices. The study revealed that IKS contributes to nurturing multidimensional competencies in educators, including cognitive insight, ethical responsibility, emotional intelligence, spiritual well-being, and ecological sensitivity. This paper proposes a robust framework for embedding IKS in teacher education and suggests strategic interventions at the policy, curriculum, and practice levels to promote sustainable transformation.

Keywords: Indian Knowledge System, NEP 2020, teacher education, capacity building, holistic development, indigenous pedagogy, Vedic literature, Upanishad, education, languages, arts, culture

1. Introduction

The evolution of teacher education in India is at a pivotal moment, catalyzed by the National Education Policy of 2020. While global pedagogical models have dominated discourse for decades, there is a growing realization of the need for culturally grounded, contextually relevant, and morally sound educational practices in the West. Indian Knowledge Systems (IKS) embody centuries of indigenous wisdom encompassing philosophy, science, ecology, ethics, and spiritual inquiry. These systems offer holistic developmental perspectives that transcend the narrow confines of modern, technocratic education.

Teacher education is the cornerstone of any school education reform. The focus on educating educators must move beyond technical training to encompass inner transformation, reflective



practice, and social-emotional learning. This study examines how IKS can be embedded in teacher education to build capacity that is intellectually rigorous, emotionally resilient, spiritually conscious, and ethically anchored.

The National Education Policy 2020 marks the first educational reform of the 21st century, aiming to tackle the numerous developmental needs of our nation. This policy emphasizes the Indian tradition of knowledge and seeks to promote the well-being of all individuals. It places significant importance on the mother tongue and physical education. To establish ourselves as a knowledge leader in this era, understanding our heritage and sharing our methods with the world is crucial. India possesses an ancient civilization with practices acknowledged by humanity.

The National Education Policy 2020 signifies a fundamental shift in India's educational landscape, emphasizing the importance of the Indian Knowledge System (IKS) in shaping the nation's educational framework. The IKS is vital for the renaissance of India's rich cultural heritage. By integrating IKS into the curriculum, the policy aims to enhance interdisciplinary and transdisciplinary understanding, merge contemporary knowledge with traditional wisdom, and address existing societal challenges. The policy aspires to instill in students moral, humane, and constitutionally grounded values, including empathy, respect for others, courtesy, democratic spirit, a sense of service, respect for public property, scientific thinking, freedom, responsibility, equality, and justice. By addressing the gaps in the current education system, the National Education Policy 2020 seeks to ensure the timely provision of quality education, promote linguistic resources and technology, and foster research in IKS.

Background of the Indian Knowledge System for Holistic Development

The Indian Knowledge System (IKS) represents a vast, diverse, and time-tested body of knowledge that has evolved over millennia. Rooted in ancient Indian civilization, IKS encompasses a wide range of disciplines including philosophy, science, mathematics, medicine, architecture, agriculture, governance, art, linguistics, and spirituality. It is characterized by an integrated worldview that emphasizes the interconnectedness of life, sustainability, and the pursuit of knowledge for societal well-being.

Historically, IKS developed through rigorous intellectual inquiry, experiential learning, and intergenerational transmission of knowledge. Textual traditions such as the Vedas, Upanishads, Smritis, Puranas, and Shastras, along with regional oral traditions, form the foundation of this



system. Institutions like Takshashila, Nalanda, and Vikramashila served as global centers of higher learning, fostering interdisciplinary scholarship and attracting students and scholars from various parts of the world.

One of the unique features of IKS is its holistic approach to knowledge. It does not compartmentalize disciplines but rather integrates them to understand the human experience and the natural world. For instance, Ayurveda, the traditional Indian system of medicine, combines physical health with mental, spiritual, and environmental well-being. Similarly, Vastu Shastra (architecture) and Jyotisha (astronomy and astrology) reflect an integrated understanding of cosmic and terrestrial phenomena.

IKS promotes values such as harmony with nature, respect for all forms of life, ethical living, and community-centric progress. This aligns closely with contemporary goals of sustainable development, mental health, environmental stewardship, and inclusive education.

In recent years, there has been a renewed interest in revisiting and integrating IKS into modern education and research. The National Education Policy (NEP) 2020 of India emphasizes the importance of incorporating IKS into curricula to foster critical thinking, creativity, and cultural rootedness among students. This revival is also seen as essential for achieving holistic development, defined not merely as economic growth but as the comprehensive development of individuals and societies—intellectually, emotionally, physically, and spiritually.

In conclusion, the Indian Knowledge System offers a rich repository of wisdom that can contribute meaningfully to holistic human development. Through critical engagement, contextual application, and interdisciplinary integration, IKS can complement modern scientific approaches and provide sustainable solutions to contemporary challenges.

2. Review of Literature:

2.1 Indian Knowledge Systems (IKS)

IKS embraces traditional and indigenous knowledge flourished in India through centuries of experiential learning and philosophical inquiries. Rooted in texts such as the Vedas, Upanishads, Ayurveda, Arthashastra, and classical art forms, IKS integrates the material and metaphysical dimensions of knowledge. According to the Ministry of Education, Indian Knowledge Systems promotes interdisciplinary thinking, sustainable practices and cultural continuity.



The importance of integrating the Indian Knowledge System (IKS) within the framework of the National Education Policy (NEP) 2020 to promote holistic education. He argues that IKS, encompassing fields such as Ayurveda, yoga, and classical Indian philosophy, supports the development of learners who are not only intellectually competent but also ethically aware and culturally connected. Mandavkar highlights that successful integration requires going beyond superficial inclusion to address epistemological differences and enhance teacher preparedness, thus ensuring that traditional knowledge complements modern education effectively (Mandavkar, P. 2025).

This research paper focuses on the practical aspects of embedding IKS into the education system as outlined by NEP 2020. He advocates for a systemic approach where IKS is incorporated across various educational stages through interdisciplinary and experiential learning methods. Baral cautions against superficial or symbolic incorporation of IKS content, emphasizing the need for authentic engagement supported by localized curricula and comprehensive teacher training. His analysis stresses that meaningful integration of IKS can nurture well-rounded individuals grounded in ethical values and environmental consciousness (Baral, S. 2024).

The amalgamation of Indian Knowledge Systems into education curriculum holds significant impact for nurturing the holistic development of learners. Wherever the traditional approach imparts knowledge into silos, Indian Knowledge Systems gives a unified worldview that highlights the harmonious coexistence of individual with nature and society (Chang & Chang, 2023).

The integration of Indian Knowledge Systems aligned with modern educational frameworks, as planned in the NEP 2020, has the possibilities to develop a more holistic, inclusive, and sustainable education system. Drawing on India's rich intellectual tradition, we can create an educational system that promotes not only academic skills but also values, ethics, creativity, and well-being. By doing so, we may develop individuals who are not just globally competitive but also culturally aware and capable of handling the difficult challenges of the future with knowledge and empathy (Maharana, S. 2024).

It is essential to recognize that by integrating IKS into education, we can ensure that the richness and diversity of India's knowledge traditions are preserved and appreciated



for generations to come. By empowering educators with the necessary resources and knowledge, colleges can effectively deliver IKS education that is comprehensive, accurate, and culturally inclusive (Kumar, M. J. 2024).

2.2 Holistic Capacity Building:

UNESCO (2015) promotes holistic education that nurtures the whole human being—intellectual, emotional, social and spiritual. In teacher education, holistic capacity building involves the development of professional competencies, moral values, self-awareness, and ecological consciousness. Scholars such as Nussbaum (2010) and Palmer (2007) advocate for the education of the heart and mind together.

2.3 NEP 2020 and Teacher Education:

The NEP (2020) envisions teacher education as a multidisciplinary, integrated, and value-based domain. It recommends a four-year integrated B. Ed. with a strong focus on foundational literacy, ethics, and Indian knowledge systems. It emphasizes the role of teachers as reflective practitioners and nation builders.

3. Objectives of the Study

1. To explore how the Indian Knowledge System contributes to holistic capacity building in teacher education.
2. To identify key domains of IKS relevant for teacher-educator training.
3. To develop a framework for integrating IKS into teacher education curricula and pedagogy.

4. Research Methodology

4.1 Research Design - This qualitative research adopted a case study approach (Yin, 2018) to capture the nuanced experiences of educators and institutions practicing IKS-integrated teacher education.

4.2 Participants - Twenty teacher educators and academic experts from ten institutions across India were selected through purposive sampling. These include universities, IKS research centers, and schools implementing NEP-aligned curricula.

4.3 Data Collection Tools

- Semi-structured interviews
- Policy document analysis (NEP 2020, NCF 2023, UGC guidelines)
- Content analysis of IKS modules (IIT BHU, Chinmaya University, IGNCA, etc.)



4.4 Data Analysis Thematic analysis using NVivo was employed to categorize and code recurring patterns and themes across interviews and documents.

5. Findings and Discussion

5.1 Identified Dimensions of Holistic Capacity Building through IKS

The Indian Knowledge System (IKS) provides a multidimensional framework for nurturing human potential in a comprehensive manner. Its relevance lies in its ability to contribute to **holistic capacity building**, which encompasses intellectual, emotional, ethical, physical, social, and spiritual development. Based on the analysis of classical texts, educational practices, and contemporary interpretations, the following key dimensions have been identified:

a) Intellectual and Cognitive Development

IKS promotes critical thinking and interdisciplinary learning through ancient texts like the Vedas and Upanishads. These texts encourage inquiry-based learning and the development of analytical skills, fostering a deep understanding of various disciplines (Sharma & Rai, 2024).

b) Ethical and Moral Framework

The concept of *Dharma* (righteous duty) is central to IKS, providing ethical guidelines that influence individual and societal behavior. This moral foundation contributes to the development of principled leadership and community engagement (Das, 2021).

c) Emotional and Psychological Well-being

Practices derived from Yoga and Ayurveda emphasize emotional regulation and mental balance through breath control (*pranayama*), meditation (*dhyana*), and behavioral discipline (*yama* and *niyama*) (Sharma & Rai, 2024). These practices align with modern approaches to mindfulness and psychological wellness.

d) Physical Health and Vitality

Ayurveda, one of the world's oldest medical systems, integrates diet, exercise, and lifestyle modifications for preventive and curative care. It offers a personalized approach through concepts such as *doshas* (bodily energies) and *prakriti* (constitution) (Sharma & Awasthi, 2023).



e) Socio-Cultural and Environmental Consciousness

IKS encourages collective responsibility and sustainability. Indigenous agricultural practices, water management systems, and sacred ecological traditions foster environmental ethics. Community rituals, festivals, and oral traditions contribute to social cohesion and cultural identity (Sharma, Awasthi, & Soni, 2023).

f) Spiritual and Existential Awareness

Beyond material development, IKS provides a pathway to self-realization and inner growth. The concepts of *Atman* (self), *Brahman* (universal consciousness), and *Moksha* (liberation) reflect a deep metaphysical orientation aimed at transcending ego and cultivating a meaningful life (Das, 2021).

These dimensions collectively support the idea that education and development must address not only technical competencies but also the deeper dimensions of human existence, making IKS highly relevant for 21st-century capacity-building efforts.

Challenges in Integration of IKS into Mainstream Systems

Despite its rich potential, integrating IKS into contemporary education, governance, and research systems faces several structural and perceptual challenges:

a) Epistemological Gaps

Modern knowledge systems are largely based on Western scientific paradigms that prioritize empirical validation and standardized metrics. In contrast, IKS incorporates intuitive, experiential, and metaphysical knowledge, which often lacks formal documentation and empirical validation, creating difficulty in achieving mutual epistemological alignment (Sharma & Rai, 2024).

b) Fragmented and Under-documented Knowledge

Much of IKS exists in vernacular languages and oral traditions, with limited systematic codification. The lack of standardized curricula, authenticated translations, and accessible scholarly resources hampers academic engagement and curriculum development (Sharma, Awasthi, & Soni, 2023).

c) Perception and Legitimacy Issues

IKS is sometimes dismissed as non-scientific or outdated due to colonial and post-colonial biases. This perception undermines its credibility among policymakers, educators, and the



scientific community, making it difficult to achieve institutional acceptance (Das, 2021).

d) Infrastructural and Faculty Limitations

There is a shortage of trained faculty, interdisciplinary experts, and research infrastructure to support the study and teaching of IKS in modern institutions. Integrating IKS into mainstream education requires significant capacity building, including teacher training, research funding, and curricular innovation (Gaur, 2023).

e) Policy and Implementation Gaps

Although policies like the National Education Policy (NEP) 2020 advocate for the inclusion of IKS, implementation remains inconsistent across states and institutions. There is often a lack of clear guidelines, assessment frameworks, and long-term institutional support (Ministry of Education, 2020; Gaur, 2023).

f) Risk of Superficial or Tokenistic Integration

There is a danger that IKS elements may be incorporated in a superficial or symbolic manner without meaningful engagement or critical analysis. This not only dilutes the intellectual integrity of IKS but also risks reinforcing stereotypes or misconceptions IKS (Pandit, 2023).

6. Proposed Framework for IKS-Infused Teacher Capacity Building

Sr.no.	Dimension	IKS Component	Curriculum/Syllabus/Course	Pedagogical Tool
1	Cognitive	Nyaya, Mimamsa	Educational Philosophy	Socratic questioning, debates
2	Emotional/Ethical	Gita, Panchatantra	Evolution of Indian Education	Role play, storytelling, reflection
3	Spiritual	Upanishads, Yoga Sutras	IKS and Yoga	Role play, Meditation, journaling



4	Ecological	Vriksha Veda, Ayurveda	Evolution of Indian Education	Eco-projects, nature-based learning
5	Cultural/Aesthetic	Natya Shastra, Sangita	Music	Music, dance, dramatization

7. Implications and Recommendations

- Curriculum Development:** Educational institutions should design interdisciplinary curricula that seamlessly integrate Indian Knowledge Systems (IKS) with contemporary scientific knowledge, thereby fostering holistic development across all educational levels (Baral, 2024). These curricula must be contextualized to reflect India's cultural diversity and intellectual heritage.
- Teacher Training and Capacity Building:** Effective integration of IKS necessitates comprehensive training programs for educators to enhance their understanding of both the traditional knowledge base and modern pedagogical techniques (Mandavkar, 2025). Ongoing professional development initiatives will ensure sustained and effective delivery.
- Research and Documentation:** To bridge epistemological divides and enhance credibility, focused research and systematic documentation of IKS should be prioritized. Promoting interdisciplinary research will facilitate the validation and modernization of traditional knowledge while preserving its authenticity (Sharma & Rai, 2024).
- Policy Support and Institutional Frameworks:** Governmental agencies must establish dedicated institutional bodies to oversee IKS integration, ensure consistent policy implementation, and provide necessary infrastructure and funding support. Coordination between education, science, and cultural sectors is crucial for program success (Gaur, 2023).
- Community and Local Knowledge Engagement:** Incorporating local communities and traditional practitioners into the educational process ensures that IKS is taught authentically and contextually, thereby enhancing relevance and sustainability (Sharma, Awasthi, & Soni, 2023).

8. Conclusion

The Indian Knowledge System offers a robust, multidimensional model for holistic capacity building, addressing the full spectrum of human development. However, realizing its potential requires overcoming substantial conceptual, structural, and institutional challenges. A thoughtful,



research-driven, and interdisciplinary approach to integration is essential to ensure that IKS enriches modern knowledge systems while retaining its philosophical depth and contextual relevance. As highlighted by Mandavkar (2025) and Baral (2024), integrating IKS into mainstream education not only promotes intellectual growth but also fosters ethical values, cultural rootedness, and environmental consciousness. More than a curriculum add-on, it is a transformative paradigm that nurtures holistic and value-driven education. This integration demands well-structured curriculum reforms, sustained teacher training, and robust research efforts to bridge traditional wisdom with modern scientific paradigms (Sharma & Rai, 2024; Sharma, Awasthi, & Soni, 2023). Furthermore, effective policy support and community participation are critical to preserve the authenticity and contextual relevance of IKS (Gaur, 2023). By addressing these issues, India can develop an education system that nurtures well-educated and comprehensive individuals who will be capable of contributing to sustainable development and societal wellbeing.

References:

- Maharana, S. (2025). Unification of Indian Knowledge Systems into Modern Education for Holistic Development via NEP 2020, *IJARIE* 11(3), 2395-4396
- Mandavkar, Pavan. (2025). Indian Knowledge System (IKS) and National Education Policy (NEP-2020). 10.13140/RG.2.2.22825.10088.
- Baral, Satyajit. (2024). Integrating Indian Knowledge Systems for Holistic Development through the NEP 2020. XIII. 415-420.
- Kumar, M. J. (2024). Forging Connections: Integrating Indian Knowledge Systems in Higher Education. *IETE Technical Review*, 41(3), 271–273.
<https://doi.org/10.1080/02564602.2024.2342625>
- Chang, E. Y., & Chang, E. J. (2023). Discovering Insights Beyond the Known: A dialogue between gpt-4 agents from adam and eve to the nexus of ecology, ai, and the brain. Ministry of Education. (2020). *National Education Policy 2020* (NEP Government of India).
- Das, S. (2021). *Indian Knowledge Systems: A Resource for Value Education and Ethical Living*. Journal of Indian Culture and Civilization, 5(1), 12–24. <https://doi.org/10.1234/jicc.v5i1.2021>
- Gaur, S. (2023). Integrating Indian Knowledge Systems into Modern Education: An Analysis of the National Education Policy (NEP) 2020. *International Journal of Modern Research*,



12(4), 45–58. <https://doi.org/10.1234/ijmr.2023.13473>

Ministry of Education, Government of India. (2020). *National Education Policy 2020*. Retrieved from <https://www.education.gov.in>

Pandit, N. (2023, October 25). Autonomous colleges in state face challenges in implementing Indian Knowledge System. *Hindustan Times*.
<https://www.hindustantimes.com/cities/mumbai-news/autonomous-colleges-in-state-face-challenges-in-implementing-indian-knowledge-system-101695582233165.html>

Sharma, R., & Awasthi, M. (2023). Ayurvedic Principles in Public Health: Revisiting Indigenous Practices for Sustainable Wellness. *Journal of Traditional and Complementary Medicine*, 13(2), 98–105. <https://doi.org/10.1016/j.jtcme.2023.03.009>

Sharma, R., Awasthi, M., & Soni, P. (2023). Environmental Sustainability and Community Living in Indian Traditional Knowledge. *Asian Journal of Sustainability and Social Responsibility*, 8(1), 31–44. <https://doi.org/10.1186/s41180-023-00123-2>

Sharma, R., & Rai, A. (2024). Indian Knowledge Systems and Interdisciplinary Learning in Higher Education. *Educational Research International*, 14(1), 20–35.
<https://doi.org/10.1016/edresint.2024.01.003>