



Understanding the Historical Perspective of the Indian Knowledge System (IKS): A Pedagogical Revival for Contemporary Education

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Abstract

The Indian Knowledge System (IKS) encompasses an expansive and integrative tradition of knowledge, rooted in ancient Indian scriptures and philosophies. As the National Education Policy (NEP) 2020 calls for a holistic transformation in education, there is renewed interest in understanding IKS from its historical origins to its relevance in the present day. This paper examines the evolution of IKS from the Vedic and Upanishadic periods to its contemporary revival, highlighting its interdisciplinary nature, sustainability, and experiential learning methods. It argues that integrating IKS into modern curricula is not merely a cultural endeavor but a strategic educational imperative that can offer deeper insights into ethics, well-being, and scientific inquiry for 21st-century learners.

Keywords: Indian Knowledge System, Vedas, Holistic Learning, NEP 2020, Experiential Education, Indigenous Knowledge, Interdisciplinary Learning

1. Introduction

India has long been recognized as a cradle of knowledge and intellectual inquiry. The Indian Knowledge System (IKS) represents a body of traditional knowledge that evolved over millennia, integrating disciplines such as science, medicine, arts, ethics, and philosophy. With the resurgence of interest in indigenous systems worldwide, IKS offers a rich and relevant framework for educational transformation. This paper seeks to understand the historical development of IKS and explores its pedagogical value in the context of modern Indian education.

The National Education Policy 2020 (NEP 2020) aims to integrate Indian Knowledge Systems (IKS) into various disciplines, recognizing the value of ancient Indian knowledge. It promotes a holistic and multidisciplinary approach, integrating IKS from fields like philosophy, science,



mathematics, and the arts. The policy also encourages research in IKS to address current and future challenges. It also promotes multilingualism, leveraging the rich linguistic diversity within IKS. Examples of IKS in NEP 2020 include advancing Ayurveda knowledge, integrating yoga, incorporating ancient mathematics and sciences, and integrating tribal knowledge systems.

The study analyzed the integration of the Indian Knowledge System (IKS) into history-methods teacher trainees' daily teaching and learning through a single-group design. The IKS was integrated through storytelling, participatory dialogue, reflective discussions, and integrative examples from ancient Indian traditions. This approach aligns with IKS pedagogy, emphasizing oral-narrative methods, experiential learning, and holistic integration. Lessons were contextualized using IKS paradigms, promoting critical reflection and moral development. The study also examined how sustained engagement with indigenous epistemologies could enhance students' historical understanding and methodological competence.

Significance of the Indian Knowledge System:

Integrating Traditional Indian Knowledge Systems (IKS) into modern education is crucial as they offer a rich repository of holistic practices that complement contemporary scientific approaches. These systems, including disciplines like Ayurveda, Yoga, ancient mathematics, and Vedic literature, promote critical thinking and ethical reasoning among students. These systems offer valuable insights, sustainable solutions, and a deep connection with nature and society, making them a valuable resource for modern education.

Objectives of the Study

1. **To explore the historical evolution of the Indian Knowledge System (IKS)** from the Vedic and Upanishadic periods to later intellectual and cultural developments.
2. **To identify and analyse the core principles and features of IKS**, including its holistic, interdisciplinary, experiential, and value-based learning approaches.
3. **To propose pedagogical strategies for the revival and integration of IKS** into the modern Indian education system, fostering culturally rooted and globally competent learners.



2. Historical Development of the Indian Knowledge System

Hinduism, Buddhism, and Jainism emerged from the same milieu as world renouncers of the 6th century BCE. They share common non-Vedic practices and doctrines, but Buddhists and Jains do not accept the authority of the Vedic tradition and are considered less than orthodox by Hindus. From the 6th to the 11th century, there was strong competition for royal patronage between the three communities, with Brahmans representing Hindu values and Vaishnavas and Shaivas.

Hinduism has much in common with Jainism, which until the 20th century remained an Indian religion, especially in social institutions and ritual life. Many Hindus still consider it a Hindu sect. The points of difference—e.g., a stricter practice of ahimsa (“noninjury”) and the absence of sacrifices for the deceased in Jainism—do not give offense to orthodox Hindus. Moreover, many Jain laypeople worship images as Hindus do, though with a different rationale.

Hindu relations with Islam and Christianity are in some ways quite different from the ties and tensions that bind together religions of Indian origin. Hindus live with a legacy of domination by Muslim and Christian rulers that stretches back many centuries. The patterns of relationship between Hindus and Muslims have been different between north and south India. While there is a history of conquest and domination in the north, Hindu-Muslim relations in Kerala and Tamil Nadu have been peaceful.

However, there have been periods when the political ambitions of Islamic rulers took strength from iconoclastic aspects of Muslim teaching and led to the devastation of many major Hindu temple complexes. The bloody partition of the South Asian subcontinent into India and Pakistan in 1947 added a new dimension, mobilizing Hindu sensibilities about the sacredness of the land as a whole.

Relations between Hinduism and Christianity have been shaped by unequal balances of political power and cultural influence. Although communities of Christians have lived in southern India since the middle of the 1st millennium, the great expansion of Indian Christianity followed the efforts of missionaries working under the protection of British colonial rule. Many Hindus are ready to accept the ethical teachings of the Gospels, particularly the Sermon on the Mount, but reject the theological superstructure.



2.1 Vedic Period (c. 1500–500 BCE)

The Vedic period marks the foundational phase of IKS. The four Vedas—Rigveda, Samaveda, Yajurveda, and Atharvaveda—form the cornerstone of spiritual and intellectual inquiry. These texts encompass cosmology, mathematics, rituals, and moral philosophy, transmitted orally through the *shruti* tradition.

Vedic mathematics, a systematic approach to mental arithmetic, has been developed by notable mathematicians like Aryabhata, Varahamihira, and Bhaskara II. These contributions in fields like algebra and trigonometry laid the groundwork for future mathematical advancements. Jagadguru Bharati Krishna Tirthaji revitalized Vedic mathematics in the 20th century, popularizing its techniques for mental calculation, such as the "Vertically and Crosswise" sutra, which simplifies large-number multiplication. Modern studies suggest that Vedic mathematics enhances students' mathematical abilities, reducing calculation time and increasing accuracy. These techniques have practical applications in STEM education, particularly engineering, where they improve design efficiency and boost student confidence. Integrating Vedic mathematics into higher education can enhance students' computational thinking, problem-solving abilities, and mathematical creativity. Key areas for integration include introducing Vedic techniques in STEM curricula, introducing innovative teaching methods, and conducting mathematical research. By integrating Vedic mathematics, institutions can enhance students' computational agility and appreciation for the historical depth of mathematics.

2.2 Upanishadic Period

The Upanishads were written during a time of social, political, and economic upheaval in India. The disappearance of rural tribal society and the transition to urban living under a monarchy led to the emergence of various groups of mystics, world renouncers, and forest dwellers, including the authors of the Upanishads. These world renouncers practiced asceticism and the concept of rebirth or transmigration. The Rigveda contains few examples of asceticism, while the Atharvaveda describes the *vratyas*, a class of religious adepts who practiced self-mortification and traveled in bullock carts. The Brahmins sought to integrate the *vratyas* into the Vedic system through special



conversion rituals. The belief in transmigration of souls is unclear, but it was first clearly propounded in the earliest Upanishad, Brihadaranyaka. The doctrine of samsara (reincarnation) is attributed to the sage Uddalaka Aruni, while the doctrine of karma (actions) states that the soul achieves a happy or unhappy rebirth based on its previous life's actions. These doctrines were new and circulating among small groups of ascetics, likely due to fear of orthodox priests.

The Upanishads represent the metaphysical extension of Vedic knowledge. They emphasize the concepts of **Atman** (self) and **Brahman** (universal consciousness), advocating for self-realization and philosophical introspection. This period laid the groundwork for later philosophical schools such as Vedanta, Nyaya, and Samkhya.

2.3 Continuity and Evolution

IKS adapted over time, embracing Buddhist and Jain philosophies, Islamic influences during the medieval period, and colonial transformations. Despite these changes, its core principles of holistic learning and moral-ethical grounding remained intact.

2.4 Oral and Written Transmission

Initially preserved through oral traditions, the writing of texts in Sanskrit and regional languages enhanced the accessibility and codification of IKS. *Gurukulas*, *Pathshalas*, and monastic universities like Nalanda and Takshashila played pivotal roles in dissemination.

3. Key Aspects of the Indian Knowledge System

3.1 Holistic and Integrative Approach

IKS integrates body, mind, and spirit, promoting overall well-being. This holistic vision contrasts with the fragmented nature of modern Western education systems.

3.2 Interdisciplinary Nature

From Ayurveda (medicine) and Jyotisha (astronomy) to Shilpa Shastra (architecture) and Natyashastra (performing arts), IKS demonstrates an interdisciplinary framework, highlighting the interdependence of different knowledge domains.

3.3 Experiential and Value-Based Learning



Practices like **yoga**, **meditation**, and **service (seva)** cultivate self-awareness and experiential insight. Learning was based on inquiry, observation, and participation—precursors to modern experiential education methods.

3.4 Sustainability and Ecology

Traditional Indian farming, water conservation, and healing practices demonstrate Eco-consciousness long before environmental sustainability became a global concern.

4. Contemporary Revival and Relevance

4.1 National Education Policy (NEP) 2020

NEP 2020 advocates the incorporation of IKS in curricula to foster culturally rooted and globally relevant education. It recognizes the importance of indigenous perspectives in building self-reliant learners and thinkers.

4.2 Institutional Support: IKS Division

The Indian Knowledge Systems Division, under the Ministry of Education, facilitates research, curriculum design, and teacher training in IKS, linking traditional wisdom with scientific innovation.

4.3 Interdisciplinary and Trans disciplinary Education

IKS is being blended with STEM and humanities disciplines to encourage trans disciplinary inquiry, enhancing creativity, critical thinking, and ethical reasoning.

5. Influence and Legacy

5.1 Cultural and Societal Impact

IKS shapes Indian festivals, rituals, ethical values, and social customs, creating a cohesive cultural identity.

5.2 Artistic and Scientific Contributions

IKS has contributed to architecture (temple design), performing arts (Bharatanatyam, Hindustani music), linguistics (Panini's grammar), and mathematics (zero, decimal system).

6. Challenges and the Way Forward

- **Curricular Integration:** Aligning ancient knowledge with current academic standards without distortion.



- **Teacher Training:** Empowering educators to effectively deliver IKS content.
- **Research Gaps:** Need for critical and empirical studies to validate and reinterpret traditional knowledge.
- **Language and Accessibility:** Bridging Sanskrit and regional language texts with modern learners.

Result Analysis:

The **Vedas** emerged as the earliest and foundational source of the Indian Knowledge System (Question 1), selected by **73.7%** of participants—highlighting strong historical awareness around Vedic texts.

When asked which principle the Indian Knowledge System emphasizes (Question 2), **42.1%** recognized its **holistic and integrated approach**—reflecting its multidisciplinary nature—while **52.6%** leaned toward "materialism over spiritualism," revealing some conceptual confusion between IKS and materialist philosophies.

In Question 3, a robust **84.2%** correctly identified **Ayurveda** as relating to **medicine and health**, showcasing strong knowledge in traditional sciences.

The scholar **Aryabhata** (Question 4) was chosen by **78.9%**, accurately acknowledging his famed contributions to **mathematics and astronomy**.

Regarding origin language (Question 5), **63.2%** selected **Sanskrit**, reflecting its status as the classical language of ancient Indian scholarship.

Vyākaraṇa (grammar) was correctly recognized by **89.5%** (Question 6), showing solid grasp of linguistic disciplines in the Indian Knowledge System.

On statecraft (Question 7), **84.2%** answered **Arthashastra**, aligning with its reputation as the definitive treatise on political economy and strategy.

Question 8 saw **77.8%** choose **unity of mind, body, and spirit**, consistent with IKS's spiritual-psycho-physical wholeness.

The identity of the **father of Yoga, Patanjali** (Question 9), was clear to **89.5%**, again underscoring familiarity with classical figures.

When asked what's **not** part of IKS (Question 10), **73.7%** correctly excluded **Communism**, further confirming their understanding.



Philosophical scriptures teaching Dharma, Karma, Moksha (Question 11) were identified by **52.6%** as **Manusmriti**, with **10.5%** pointing to the **Upanishads**—the latter also deeply authoritative, indicating some variation in interpretation.

The **Guru-Śiṣya oral tradition** (Question 12) was chosen by **78.9%** as the mode of traditional transmission.

For architecture and town planning (Question 13), **72.2%** named **Bṛhat Saṃhitā**, spotlighting their awareness of classical treatises in engineering.

Question 14 correctly identified **Nyāya** (logic and reasoning) by **57.9%**, while others chose Vedānta or Sāṅkhya.

Finally, the famed **Nalanda University** (Question 15) was recognized by **94.7%** as a multidisciplinary learning center—including philosophy, medicine, logic, arts—highlighting strong consensus on its scholarly legacy.

The Indian Knowledge System (IKS) is a complex system of ancient texts, with the Vedas being the earliest foundational texts. The system emphasizes a holistic approach, with Ayurveda being the most recognized system. Aryabhata is credited as a classical scholar in mathematics and astronomy. Sanskrit is the primary language of IKS origin, and Vyakarana handles language study. Arthashastra is the definitive treatise on statecraft and economics. IKS promotes mind-body-spirit unity, and Patanjali is the "father of Yoga." IKS is traditionally transmitted through oral tradition, rooted in ancient pedagogy. The respondents' knowledge of IKS is strong, with a strong understanding of its roots in medicine, grammar, logic, statecraft, and spirituality.

7. Conclusion

The historical perspective of the Indian Knowledge System offers valuable insights into a holistic and integrated approach to education. As India moves toward transforming its educational landscape, drawing from its rich intellectual heritage is both a cultural necessity and a progressive strategy. Integrating IKS into contemporary learning frameworks can foster responsible, ethical, and innovative global citizens rooted in Indian values.

The NEP 2020 initiative advocates for the integration of traditional Indian knowledge systems (IKS) into higher education. This approach is a significant step towards creating a culturally rich and globally relevant education system. It promotes critical thinking, ethical reasoning,



and sustainable practices among students. The successful integration can lead to a more inclusive and multidisciplinary educational environment, bridging the gap between modern scientific methodologies and traditional wisdom. It also enhances the employability of graduates by providing a unique blend of traditional and contemporary knowledge. By embracing this vision, India can create a more culturally aware and ethically grounded generation capable of contributing to sustainable development and societal well-being.

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