



Integrating Indian Knowledge System Into Education And Its Challenges In The Context Of Nep 2020

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Abstract: The National Education Policy (NEP) 2020 marks a transformative shift in India's educational approach, emphasizing the integration of Indian Knowledge Systems (IKS). The NEP acknowledges the importance of preserving and advancing India's rich legacy in areas such as philosophy, language, science, and the arts. It recognizes that IKS offers valuable perspectives that can enhance modern education. By focusing on interdisciplinary and trans-disciplinary knowledge, the policy seeks to integrate traditional Indian wisdom with contemporary learning to address present and future challenges. NEP aims to inspire the next generation to appreciate the significance of traditional knowledge in shaping the world. However, the implementation of this vision faces several challenges, including limited resources, resistance to change, and the need for a standardized framework for validating and certifying traditional knowledge. This paper explores the significance, strategies, and challenges of incorporating IKS into higher education, highlighting its potential to create a more balanced and enriched educational ecosystem.

Keywords: Indian Knowledge Systems (IKS), National Education Policy (NEP), Multidisciplinary Education, Higher Education, Challenges

I. INTRODUCTION

Indian knowledge system is an ancient and rich collection of beliefs, practices, and philosophies that have been passed down from generation to generation in India. It encompasses various fields such as science, spirituality, art, literature, and social norms, and has played a significant role in shaping Indian society and culture. The foundation of the Indian knowledge system lies in the ancient texts of the Vedas, which are considered to be the oldest scriptures in the world. The Vedas contain a vast amount of knowledge on subjects ranging from medicine, astronomy, mathematics, and politics, to spirituality and philosophy.

They provide insights into the Indian way of life, highlighting the importance of balance, harmony, and unity in society (education.gov.in, 2023).

One of the key aspects of the Indian knowledge system is its holistic approach towards life. It acknowledges the interconnectedness of all aspects of existence – from the individual to society, from human beings to nature, and from the physical to the spiritual. This holistic approach is reflected in various Indian practices, such as Ayurveda, Yoga, and Vastu Shastra, which focus on maintaining balance and harmony within and with the environment. Another significant aspect of the Indian knowledge system is its emphasis on seeking knowledge through observation and personal experience. This approach is reflected in the teachings of ancient Indian sages and philosophers, who encouraged critical thinking and self-reflection as a means to gain wisdom and understanding. It also highlights the value of oral tradition, with knowledge being passed down through storytelling, discussions, and debates.

The rich legacy of timeless Indian knowledge and philosophy is acknowledged as a guiding element in the NEP, 2020. The Jnan, Vignan, and Jeevan Darshan knowledge systems of India have developed from experience, observation, experimentation, and thorough analysis. Our education, Philosophy, spirituality, science, mathematics, literature, art, medicine, governance, and social organization are just a few of the many fields that have been touched by this legacy of validating and putting into practice. (Gupta, 2024)

II. Components of the Indian Knowledge System:

Indian Knowledge System (IKS) comprises three words namely: Indian, Knowledge, and System.

Indian: It refers to Akhanda Bharata i.e. undivided Indian subcontinent. It covers the area that spans from Burma on the east modern-day Afghanistan on the west the Himalayas on the north and the Indian Ocean on the south. Chanakya was instrumental in the establishment of the Mauryan Empire and Panini who wrote Sanskrit grammar got their education at Takshashila University of ancient India now in Punjab Pakistan. Ancient Indian education included the teaching of eighteen Vidya Sthanas, or schools of learning which were imparted in renowned centers such as Nalanda and Takshashila. India's global reputation has been derived from its contributions in the fields of Art, Architecture, Science, Technology, Craft, Engineering, Philosophy and Practices. Since most of the foreigners who visited India at that time for knowledge and disseminated this knowledge to the West and other parts of the world respectively.

Knowledge: Knowledge refers to the tacit knowledge and it lies in the wisdom of knowledge seekers. It is gained by insights into personal experiences through observations facing real life problems and solving them. Knowledge may exist in literary and non-literary forms. This tacit knowledge is transferred systematically by way of proposing new theories and frame works and in the form of literary work i.e. in the form of explicit knowledge.

System: System means a well-organized methodology and classification scheme used to access a body of knowledge. The classification is based on the need, interest, and capacity of the knowledge seeker so that he may access the inherent knowledge. The IKS is the systematic transfer of ancient and modern knowledge from one generation to another. It covers ancient knowledge from various domains to address current and future challenges. This knowledge exists in both literary and non-literary works. Literary resources cover Vedic and allied literature mainly in the Sanskrit Language resources on other religious traditions Buddhism and Jainism and knowledge that exists in Indian languages and dialects. Non-literary resources are present in oral traditions available across the country. In the view of Kautilya, Education should aim at three outcomes such as, Vidyavikarana - Creation of new Knowledge, Vivek -Wisdom to use the right knowledge in right time and place for right purpose, and Vichashagnata – the skill set to get the proper results of knowledge in real life. These outcomes are possible only when the education system is properly balanced with the integration of knowledge and skill in an appropriate manner. (Rahman)

III. Significance of Indian Knowledge System in The Present Scenario:

Indian civilization has long held knowledge in high regard, evident through its vast repository of intellectual texts—arguably the world's largest collection of manuscripts—and a well-documented heritage spanning texts, thinkers, and schools across diverse subjects. Lord Krishna, in the Bhagavad Gita (4.33, 37–38), imparts the wisdom that knowledge is the paramount means of self-purification and liberation. This commitment to knowledge has persisted like the unbroken flow of the Ganges River, extending from the Vedas and Upanishads to the insights of figures such as Sri Aurobindo.

The foundation of Indian knowledge systems lies in the rich tapestry of Indian culture, philosophy, and spirituality, evolving over millennia. Ayurveda, Yoga, Vedanta, and Vedic sciences, integral components of these systems, remain relevant in the contemporary world.

1. Well-being: Ayurveda, a traditional Indian medical system, advocates a holistic approach to well-being. In a world where health-related challenges are increasing, Ayurveda promotes natural healing methods, personalized remedies, and a focus on preventive health measures.

2. Stress Management: Yoga, originating in ancient India, provides a comprehensive approach to internal, physical, and spiritual well-being. Incorporating practices like asanas (postures), pranayama (breath control), and meditation, Yoga has proven effective in reducing stress, enhancing internal health, and bolstering overall well-being—especially pertinent in today's fast-paced and stressful world.

3. Sustainable Living: Indian knowledge systems stress the interconnectedness of all beings, promoting sustainable living practices, encapsulated in the concept of "Vasudhaiva Kutumbakam" (the world is one family). Given the pressing environmental concerns and the need for natural resource conservation, these principles gain increasing significance.

4. Spiritual Growth: Systems like Vedanta offer insights into the nature of reality, mindfulness, and spiritual well-being. Grounded in ancient Vedas, they provide guidance on emotional intelligence, mindfulness, and the pursuit of meaning and purpose—crucial in a modern world where many seek deeper fulfillment.

5. Innovation: Indian knowledge systems historically contributed to scientific advancements in mathematics, astronomy, and metallurgy. Concepts like zero, the decimal system, and trigonometry, originating from ancient Indian thought, continue to play a pivotal role in contemporary science and technology, highlighting the enduring influence of Indian knowledge in fostering innovation. (Sharma & Khan, 2024).

IV. NEP and integration of IKS:

National Education Policy 2020 is the first education policy of the 21st century which aims to address the many growing developmental imperatives of our country. In order to make the education system more modern that aligned with the aspirational goals of 21st century education, including SDG4 (Sustainable Development Goal 4), this Policy proposes “the revision of all aspects of the education structure, including its regulation and governance, while building upon India’s traditions and value systems”. (Biswas, 2021).

Indian Knowledge Systems (IKS) refer to the indigenous knowledge, practices, traditions, and heritage that have taken root and developed over various millennia in India. These encompass various disciplines and are aimed at making learners proficient in various domains such as Arts, Literature, Science, Technology, Mathematics, Indian Languages, Indian Architecture, Living with Nature, and Agriculture. IKS focuses on safeguarding and advancing India's vast legacy of knowledge systems. It provides insightful opinions and viewpoints that enhance contemporary education. Thus The Indian National Education Policy (NEP)-2020 marked a significant shift in the country's approach to education by including the Indian knowledge systems as a foundational component of the curriculum. The NEP 2020 has acknowledged the significance of Indian knowledge systems and emphasized that IKS will be part of the curriculum and will be incorporated scientifically. IKS along with tribal knowledge will be included in mathematics, engineering, philosophy, yoga, medicine, sports, games, literature languages and various other domains. NEP has focused on specific courses in tribal ethno-medicinal practices, forest management and organic and natural farming. Under NEP, IKS will be taught as an elective course for secondary school students. These inputs will be delivered through modern technologies, fun games and cultural exchange programs among different states. NEP focuses on multilingualism and the IKS repository has many languages. Under NEP students will be delivered curriculum in their native languages and Sanskrit is the most ancient language will be taught to all. By learning different languages, they will know the rich and diverse culture of the nation. The Multilanguage formula will cover the aspects of constitutional provisions and it will create unity and integrity across the nation. It would be easy to include the history of Indian mathematics in normal math classes. The same could be done for architecture philosophy and Ayurveda. This is the goal of the NEP, but it will have to be done slowly. (Amani 2024)

V. Key Features of NEP 2020 Pertaining to Indian Knowledge Systems:

- **Multidisciplinary Approach:** NEP 2020 emphasizes a multidisciplinary approach to learning, encouraging students to explore diverse subjects and integrate insights from different knowledge systems. This approach fosters creativity, critical thinking, and a holistic understanding of complex issues.
- **Promotion of Indian Languages:** The policy advocates for the promotion and preservation of Indian languages, recognizing their role in preserving indigenous knowledge systems. By providing multilingual education, NEP 2020 ensures that learners have access to diverse cultural and linguistic resources.
- **Emphasis on Experiential Learning:** NEP 2020 prioritizes experiential learning methods, including hands-on activities, field trips, and project-based learning. This approach aligns with the principles of Indian knowledge systems, which emphasize learning through direct experience and practical application.
- **Integration of Traditional Arts and Crafts:** The policy underscores the importance of integrating traditional arts and crafts into the curriculum, acknowledging their role in preserving cultural heritage and transmitting traditional knowledge from generation to generation. (Baral,2024) The policy is meant to encourage the next generation to recognize the significance that traditional knowledge formerly had. The policy also emphasizes the need for teacher training programs to equip educators with the knowledge and skills required to integrate IKS into their pedagogical practices. It calls for the inclusion of modules on IKS in teacher education curricula and professional development initiatives. (Amani, 2024)

VI. The integration of IKS offers numerous benefits:

- **Cultural Identity and Heritage:** Strengthening students' connection to their cultural roots and promoting a sense of pride in their heritage.
- **Holistic Education:** Providing a well-rounded education that includes moral, ethical, and spiritual dimensions.
- **Innovation and Sustainability:** Drawing from traditional practices and wisdom to address contemporary issues such as sustainability and wellness. (Gaur, 2024)

VII. Enhancing learning opportunities through IKS

- **Credit Component and IKS Electives:** Universities across all States/Union Territories (UTs) are encouraged to introduce learner credits or IKS electives in various courses. These initiatives aim to infuse traditional knowledge and cultural pride into learners from diverse disciplines. The University Grants Commission (UGC) has already mandated that 5% of total credits should be related to IKS courses. Additionally, the All-India Council for Technical Education (AICTE) has introduced IKS courses for first-year engineering students.
- **Designing Regional Courses:** States/UTs have the opportunity to document their unique native cultures, arts, crafts, traditions, architecture, food habits, languages, and more. By doing so, they can tailor dedicated courses that resonate with learners' local contexts and heritage.
- **Global Collaborations:** Recognizing India's global history, universities can design multidisciplinary courses that explore international collaborations. For instance, the National Council of Educational Research and Training (NCERT) is actively including content that highlights historical connections between India and Indonesia at the school level.
- **Online and Open Distance Learning (ODL):** Existing IKS courses can be seamlessly integrated into digital learning platforms such as SWAYAM and NPTEL. This approach ensures that learners from various geographical locations can access IKS education. (Amani, 2024)
- **Hands-on learning**

Internships: Providing opportunities for students to learn through internships and apprenticeships

Workshops: Providing opportunities for students to learn skills through hands-on workshops

Hackathons: Conducting IKS-themed hackathons and include IKS topics in other hackathons

These strategies collectively contribute to transforming education by embracing India's rich knowledge systems and fostering a holistic learning experience.

VIII. Challenges:

- **Lack of adequate infrastructure:** Some educational institutions do not have adequate infrastructure to support the integration of Indian Knowledge System (IKS) into the curriculum.
- **Resistance from teachers and policymakers:** Resistance from teachers as well as policymakers is another challenge for the implementation of IKS in the Education system. There may be doubt in their minds about the importance and value of Indian traditional knowledge in the modern world. Many educators and stakeholders might view IKS as irrelevant or outdated in this modern era.
- **Loss of unique cultural context:** There may be apprehensions about potentially diminishing the unique cultural context and practices associated with traditional knowledge systems if they are incorporated into mainstream education.
- **Lack of Awareness:** Lack of awareness about the importance and value of IKS among the community and stakeholders is another major challenge for the proper implementation of IKS in Education system.
- **Lack of adequate resources:** It is generally present in non-literary form. From ancient times IKS has been passed verbally from one generation to another. Therefore, there may be a chance of loss of original knowledge. It makes it difficult to implement IKS in Educational institutes. There is no clear-cut curriculum about IKS.

- **Cultural Barriers:** In India where there is so much diversity with regards to religion, caste, creed, language, etc., the implementation of the IKS in educational institutions across India may face a huge challenge.
- **Impact of colonial Legacy:** The colonial system of education has developed a bias against the IKS in the Indian Education system. The current Indian education system is largely focused on the Western knowledge system and it can create difficulty in accepting this system.
- **Lack of qualified teachers:** There is a shortage of well-trained teachers to teach the IKS because it is not widely adopted in Indian universities.

IX. Conclusion:

The educational institutions have a crucial role in shaping education and can actively preserve and share the Indian Knowledge System. The integration of traditional Indian pedagogies such as the Gurukul system, Upanishadic methods, and Buddhist educational practices into the modern educational framework under NEP 2020 offers significant potential for enhancing holistic development, critical thinking, and character education. The NEP-2020 aims to end the discontinuity in Indian knowledge systems through its integration into curricula at all levels. It also aims to support current multidisciplinary research prospects for academics and educational institutions.

The Indian government has taken a step under NEP to integrate IKS into the curriculum. But this inclusion of IKS has certain challenges and these challenges need to be addressed before inclusion. There is an emergent need for proper training of the teachers so that they have proper knowledge of IKS and can deliver it in a meaningful way. The data available about IKS needs to be rationalized with the help of information technology and making it available as per the needs and capacity of the stakeholders. This cannot be done overnight as the Indigenous Knowledge Systems have evolved in India over thousands of years. It will be replaced gradually over time.

However, the successful implementation of these methods requires addressing challenges related to modernization, scalability, and cultural sensitivity. Despite several challenges, the potential benefits of integrating traditional Indian knowledge systems into higher education are immense. It can lead to the creation of a more culturally aware and ethically grounded generation of learners, capable of contributing to sustainable development and societal well-being. By embracing the vision of NEP 2020, India can pave the way for an education system that not only preserves its rich heritage but also prepares its students for the complexities of the modern world.

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