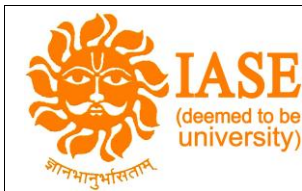




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On the Topic  
**Indian Knowledge System (IKS): Challenges & its Application in Higher Education for Sustainable Development**  
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## Integrating Indian Knowledge Systems into Teacher Education in India: Need and Challenges

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### Abstract

India's NEP 2020 emphasizes the importance of the Indian Knowledge System (IKS) for education today and encourages purposeful use of IKS in curricula and teacher preparation. The aim of this article is to rationalize the need for IKS in teacher education preparation and to discuss the challenges-the hurdles-that need to be overcome in order to achieve this. The paper asserts that the presence of IKS in either teacher identity, instructional design, or community engagement, through the lens of culturally responsive pedagogy, epistemic justice, and decolonial thought, can enhance education by valuing existing classical knowledge traditions such as, but not limited to, Nyāya or Ayurveda, local and tribal knowledge, languages, arts, ecology, craft, and philosophical-ethical systems. It presents the reasoning behind teaching this content, how this content might contribute to the skills needed in the 21st century, and what it means for curriculum, assessment, and practicum. The analysis also identifies concerns and barriers such as tension in the epistemology; tokenism; essentialism; faculty capacity gaps; resource scarcity; language and translation; fit with accreditation and assessment; and challenges with academic rigor and inclusivity. It presents an implementation model that describes stepwise capacity building, community engagement, open educational resources, research and evaluation plans, and the protection of pluralism equity. The final conclusion notes that the consideration of IKS in teacher education is both a moral responsibility and a pedagogical opportunity, and that if this is done, it should be with a critical, evidence-informed, and contextually sensitive approach.

**Keywords:** Indian Knowledge System (IKS), Nyāya, Ayurveda, epistemic justice, essentialism, teacher education, instructional design

### Introduction

The NEP (National Education Policy) 2020 <sup>[4]</sup> marked a major change in India's educational perspective by explicitly incorporating Indian Knowledge Systems (IKS) into the whole educational system, including teacher education. IKS refers to the scientific, logical, philosophical, and cultural aspects of India, which include not only the classical systems like Nyaya, Samkhya, and Ayurveda but also the local, indigenous, and tribal knowledge practices. The

inclusion of these knowledge areas in teacher education is by no means a symbolic gesture only but a groundbreaking move that is deeply connected with the goals of epistemic justice, cultural responsiveness, and the decolonization of knowledge. In this research paper, the author analyzes the reasons that justify IKS integration into teacher education, its corresponding advantages, the existing difficulties on the way, and the strategy for sustainable and inclusive integration.

### **Rationale for Integrating IKS in Teacher Education Epistemic Justice and Decolonization of Knowledge**

The structures of the colonial educational system have, for a long time, suppressed native knowledge systems while at the same time promoting Western epistemologies as the indicator of academic excellence. The integration of IKS attempts to redress this inequality by bringing in epistemic justice-recognizing and validating various knowledge sources (Fricker, 2007) [2]. Teacher education, thus, can be a place where a wider intellectual horizon is opened up, making the teachers capable of connecting the ancient knowledge traditions with the requirements of modern pedagogy.

### **Culturally Responsive Pedagogy**

IKS offers a pedagogical method that is deeply rooted in the culture. The teachers who are skilled in the local languages, folklores, ecological practices, and crafts will be able to create engaging, contextualized learning programs for the students. The cultural responsiveness that this method promotes does not only lead to a stronger learning process but it also helps the students' cultural identities to be recognized and thus, inclusivity and the sense of belonging to the community are enhanced (Gay, 2018) [3].

### **21st Century Skills Development**

IKS in no way represents outdated knowledge but actually it nurtures the critical thinking, problem-solving, creativity, and sustainability of students. Taking the example of Ayurveda which concentrates on the holistic welfare of an individual and hence the idea can be adopted in the health education field in contemporary times, the same goes for Nyaya which trains the mind to be logically rigorous and so the skills of reasoning and analysis get complimented with it. The tribal ecological knowledge is a source of the useful information to cope with the challenges of climate change and to practice sustainability (Agrawal, 1995) [1].

### **Strengthening Teacher Identity and Community Engagement**

Teachers who have been acquainted with IKS are the ones who can act as cultural mediators, essentially the link between schools and local communities. As a result, we get the strengthening of the teachers' identity, their sense of professionalism, and the community's trust towards the schools, which then allows a mutual exchange of knowledge between the participants.

### **Challenges in Implementing IKS in Teacher Education Epistemological Tensions**

The fusion of IKS with teacher education is a "red flag issue," epistemological questions about the very base of knowledge arise. Western scientific paradigms often expect numbers and charts as proof, thus their inherent logic may not suit the mostly qualitative, experiential, and sometimes even oral forms of IK. The melding of these worldviews necessitates the encounter of mutual respect and recognition but without sacrificing their own epistemic integrity.

### **Risk of Tokenism and Essentialism**

On the one hand, partial or shallow integration of IKS may result in a mere addition of some folk tales or cultural

references to textbooks which may lead to the risk of tokenism. In the same vein, essentialist depictions of IKS might understate or stereotype the simple-mindedness of internal plurality and fluidity (Smith, 2012) [5] of IKS.

### **Faculty Capacity and Resource Gaps**

Mostly, tertiary teacher education institutions are short of faculty proficient in IKS. Besides that, teaching materials, research literature, and open educational resources (OER) in local languages are still very limited. The lack of resources and capacity building will be turning the integration into an ambition rather than a reality.

### **Language and Translation Issues**

Most of traditional and indigenous knowledge are passed on through Sanskrit, Prakrit, Pali, and local dialects. Besides this, there are many distinct and isolated tribes spread over diverse remote areas. With translators, it might be a mess of meanings and loss of even the tiniest of nuances sometimes making very difficult writing representations that are close to the original ones.

### **Assessment and Accreditation Constraints**

The current teacher education curricula are designed to be in harmony with the accreditation administration and are compatible with standardized assessments. There might be problems in the integration of IKS content into these inflexible structures which in effect may raise questions such as those regarding evaluation criteria, certification, and institutional accountability.

### **Concerns of Academic Rigor and Inclusivity**

The skeptics propose that the acceptance of IKS in school might lead to weakening the academic quality of rigor, especially if the knowledge base is not put through critical scrutiny. Besides that, the practice of dominating certain traditions over others may lead to minorities or less-documented works getting pushed aside, thereby losing ground in inclusivity.

### **Proposed Implementation Framework**

#### **Stepwise Capacity Building**

The first move of an organization must be teacher training workshops, IKS research visiting scholar program, and collaborations with knowledge holders, slowly but surely becoming more competent. Alongside content knowledge, teacher educators have to be empowered with pedagogical knowledge as well.

#### **Community Engagement and Co-Creation**

Village folks, craftsmen, and professionals might be actively participating in the teaching process and not passive recipients of information. The participatory model attributes value to real-life knowledge and guarantees that the teacher education remains grounded in genuine practices.

#### **Development of Open Educational Resources (OERs)**

IKS content created in easily understandable formats and translated into regional dialects can make the access to knowledge less elitist. The role of digital platforms in disseminating IKS content far and wide cannot be overemphasized.

**Integration into Curriculum and Practicum**

The curriculum design stage should see the weaving of IKS across the foundation, pedagogy, and practicum segments. Practicum experiences can involve going deep into community practices, environmental research, or native arts.

**Research and Evaluation Mechanisms**

Tight and thorough scientific methodologies should be employed to gauge the effects of IKS integration on the identities of teacher, student learning, and community participation. Constant research serves to improve practices and address rigor-related critiques.

**Safeguarding Pluralism and Equity**

The association must not be designed in such a way that it advantages the more powerful groups in the history of science, instead, it shall recognize the diverse field of knowledge heritage of India. Social justice principles should permeate every decision made in order to ensure that the voices of the disenfranchised and minority groups are heard.

**Implications for Teacher Education Policy**

IKS incorporation in teacher education will have to go through a well-structured policy system. The National Education Policy (NEP) 2020<sup>[4]</sup> is definitely a master plan but putting it into action requires the collaboration of accreditation bodies, state-level teacher education councils, and funding mechanisms. Policies need to emphasize multilingualism, interdisciplinary approaches, and research incentives.

**Conclusion**

The inclusion of Indian Knowledge Systems into teacher education is both a nod to morality and an opening in pedagogy. It restores the past injustices, rejuvenates teacher identity, and responds to the worldwide demand for decentering education. However, to get a real implementation, it is necessary to get over the epistemological tensions, faculty capacity shortages, and structural constraints. IKS will never be just another subject in teacher education but a vibrant one if enabled through capacity building, community engagement, OER development, and pluralistic policies. The extent to which this will be successful will rely on the use of critical, evidence-based, and context-sensitive approaches that strike a balance between tradition and innovation. If done with creativity, integrating IKS can convert teacher education into a more inclusive, sustainable, and culturally resonant enterprise.

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