

ROLE OF TEACHER EDUCATION IN THE PROMOTION OF INDIAN KNOWLEDGE SYSTEM

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Abstract:

Teacher education plays a crucial role in promoting the Indian Knowledge System (IKS), which includes traditional knowledge and wisdom from India's culture, art, science, and spirituality. This abstract highlights how teacher education is key to making Indian Knowledge System a part of modern education, benefiting students, teachers, and society as a whole. By training teachers to understand and teach this rich heritage, they can pass on this knowledge to students in a way that blends both traditional wisdom and modern education. Through teacher education, educators are taught how to incorporate Indian Knowledge into their teaching methods, helping students appreciate their cultural roots while also preparing them for today's world. This approach can foster a sense of pride and identity among students, while also encouraging them to think critically and solve real-world problems using both ancient and contemporary knowledge. The Indian National Education Policy (NEP) 2020 brings a major change in how education is approached in India. One of the key highlights is the focus on including Indian Knowledge Systems (IKS) as an important part of the curriculum. The NEP-2020 recognizes the value of India's rich heritage in areas like philosophy, language, science, and arts. It emphasizes the need to preserve and promote this traditional knowledge, while also using it to improve modern education. The policy aims to encourage the integration of Indian knowledge into education to offer new insights, ideas, and perspectives that can benefit today's learners. The Indian education system has undergone significant changes over time, moving from informal learning at home to more organized schools and institutions, both private and government-run. Major influences on this transformation include colonial rule and the spread of Western ideas, which still affect the system today. The ongoing impact of globalization and capitalism also plays a role in shaping the way education is structured and delivered in India. Inclusion of Indian Knowledge Systems the NEP underscores the integration of traditional Indian knowledge systems into the curriculum. In the context of the education, this could involve drawing upon historical Indian contributions in incorporating cultural contexts into the teaching of mathematical concepts. Moreover, taking over the IKS to the beta generation about the subject and India. Teacher is most important one to promote knowledge to the students. Quantitative Research Methodology followed and responses got through Google form has 85% more than teacher agreed for promoting is very much important. The significance of teacher education in promoting and preserving Indian knowledge, tradition, and culture cannot be overstated. Teachers play a pivotal role in every stage of a student's life, guiding them through various learning phases. In the context of Indian culture and traditions, well-educated teachers ensure that these values are passed on to future generations, fostering pride and appreciation for India's

rich heritage. The evolution of India's education system, from ancient Gurukuls to modern tech schools, underscores the enduring importance of the teacher's role.

Keywords: *Indian Knowledge System (IKS), NEP-2020, Learning, Teaching*

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Introduction:

Teachers play an important role in promoting the Indian Knowledge System (IKS) in schools. IKS includes traditional knowledge in areas like science, art, philosophy, language, and culture, which have been part of India's history for centuries. Teachers help bring this knowledge into the classroom, allowing students to learn about their own cultural heritage while also connecting it to modern ideas and global learning.

A teacher's job is not only to teach facts but also to inspire students to think critically, respect their traditions, and explore new ideas. By including IKS in their teaching, teachers can help students develop a sense of pride in their culture and apply this knowledge in everyday life.

In this process, teacher education is important. It prepares teachers with the skills and knowledge to teach IKS effectively. This way, teachers can guide students to understand and value India's ancient wisdom while shaping them into well-rounded individuals for the future.

A teacher needs to be neutral and unbiased in their approach, treating all the topics equally without any personal agenda because their every word will be the framework for the students. They should create a safe and inclusive learning environment where students feel comfortable expressing their thoughts and opinions. **"Education is the most powerful weapon which you can use to change the world."** – Nelson Mandela, when people are educated, they are empowered to make informed decisions, challenge injustices, and improve their communities. Education not only helps individuals grow and succeed but also plays a crucial role in addressing social, economic, and political issues. By using education as a "weapon" in the sense of a tool for transformation, it becomes a means of creating a fairer, more just, and more prosperous world.

In ancient times, education systems were very different from what we have today. They were often informal, community-based, and highly focused on imparting practical knowledge, moral values, and skills that were needed for survival and societal functioning. Here are some key aspects of the ancient

Ancient Education	Modern education
Guru-Shishya Tradition (India) In ancient India, the most common method of education was the Guru-Shishya tradition, where students (shishyas) learned under the guidance of a teacher (guru). This system was personalized, with one-on-one learning or small groups. 1. Education was primarily oral, with a strong emphasis on memorizing sacred texts,	Modern education refers to the current system of learning that is structured, organized, and widely available in schools, colleges, and universities. Unlike ancient education, modern education focuses on academic subjects like mathematics, science, language, history, and social studies, as well as skills like critical thinking, creativity, and problem-solving.

scriptures, and philosophical teachings, such as the Vedas and Upanishads.

2. Students were taught in Gurukuls, small ashrams or hermitages, often located in secluded places like forests or mountains, where the environment was peaceful and conducive to learning.

Key Features of Ancient Education:

3. Oral Tradition: Knowledge was passed down orally through storytelling, chants, and memorization.
4. Holistic Development: Education often involved a balance between intellectual, physical, and moral development.
5. Religious and Moral Learning: Many ancient education systems were closely linked to religious or philosophical teachings, such as Hinduism, Confucianism, or Greek philosophy.
6. Practical Knowledge: Education was focused on life skills, survival, and contributing to society.
7. In essence, ancient education systems were more centred around community-based, practical, and value-driven learning. They were not just about academics but also about developing the character, skills, and ethics required to live a meaningful life in society.

Here are some key features of modern education:

1. Formal Schools and Institutions: Education takes place in schools, colleges, and universities, where students follow a set curriculum. Teachers use textbooks, computers, and other tools to teach lessons.
2. Focus on Different Subjects: Modern education covers a wide range of subjects like science, arts, literature, social studies, and technology, helping students learn about many aspects of life.
3. Technology in Learning: Today, technology plays a big role in education. Students use computers, tablets, and the internet to learn and complete assignments. Online learning platforms and e-books are becoming more common.
4. Diverse Methods of Teaching: Teachers use a mix of lectures, discussions, group work, and projects to make learning more engaging. There is also a focus on hands-on learning through experiments and activities.
5. Assessment and Exams: Students are regularly tested through assignments, quizzes, and exams to evaluate their understanding and progress.
6. Inclusive Education: Modern education encourages everyone to learn, regardless of background, gender, or ability. Schools and colleges work to create equal opportunities for all students.
7. Focus on Lifelong Learning: Modern education emphasizes the idea that learning doesn't stop after school or college. People are encouraged to continue learning

	<p>throughout their lives to keep up with new information and skills.</p> <p>In simple words, modern education is about providing structured and comprehensive learning through various subjects, methods, and technology, aiming to prepare students for success in both their personal lives and careers. The traditional education system was a more conventional approach to learning, where the teacher had the central role and the learning process was mostly one-sided. Students were expected to memorize information and repeat it, with little emphasis on creativity or critical thinking. The focus was primarily on rote learning and academic performance, particularly grades. This method was cost-effective and fostered a strong teacher-student relationship. Since the teaching style was primarily lecture-based, there was no need for advanced technical knowledge. Additionally, students were generally considered more disciplined in this system compared to modern education.</p>
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Figure1.1 Ancient Education v/s Modern education

The modern education system emphasizes the development of critical thinking and creativity. It encourages students to think for themselves, analysed situations, and find solutions, rather than simply memorizing facts. This system values individualism, allowing students to pursue their own interests and passions. Technology plays a major role in modern education, offering students access to a wealth of information and learning resources. Collaborative and cooperative learning are also key features, where students work together to solve problems effectively. Teachers incorporate visual, auditory, and kinaesthetic (VAK) teaching methods to make lessons engaging and easier to understand. Moreover, extracurricular activities in schools contribute to students' overall development, enhancing their social, emotional, and physical growth.

What is Indian knowledge system?

IKS stands for **Indian Knowledge System**, which refers to the traditional knowledge, wisdom, and practices that have been developed and passed down through generations in India. It encompasses a wide range of

knowledge across various fields, including philosophy, mathematics, science, medicine, literature, arts, agriculture, and spirituality.

Some key elements of IKS include:

1. **Philosophy and Spirituality:** Ancient Indian philosophical systems such as **Vedanta, Yoga, Buddhism,** and **Jainism**, which explore topics like the nature of existence, consciousness, and the universe.
2. **Mathematics and Science:** Contributions like the concept of zero, the decimal system, **Ayurveda** (traditional medicine), **Sanskrit grammar**, and advanced astronomy.
3. **Literature:** Rich literary traditions such as **Sanskrit** texts, the **Mahabharata, Ramayana, Vedas**, and works in regional languages that have shaped the cultural and intellectual landscape of India.
4. **Art and Architecture:** Ancient knowledge about art forms like dance, music, sculpture, and architecture, which have unique techniques and cultural significance.
5. **Agriculture:** Traditional farming techniques, sustainable agricultural practices, and indigenous knowledge of plants, soil, and ecosystems.

IKS is not only a collection of ancient knowledge but also an ongoing source of wisdom that can inform contemporary practices. The idea is to preserve and promote this knowledge system while integrating it with modern education and technology for a more holistic and sustainable future.

According to the **National Education Policy (NEP) 2020**, the **Indian Knowledge System (IKS)** is envisioned to be integrated into the educational curriculum at various levels. The policy encourages the inclusion of IKS across different degrees of education, from school to higher education, in a way that aligns with modern educational practices.

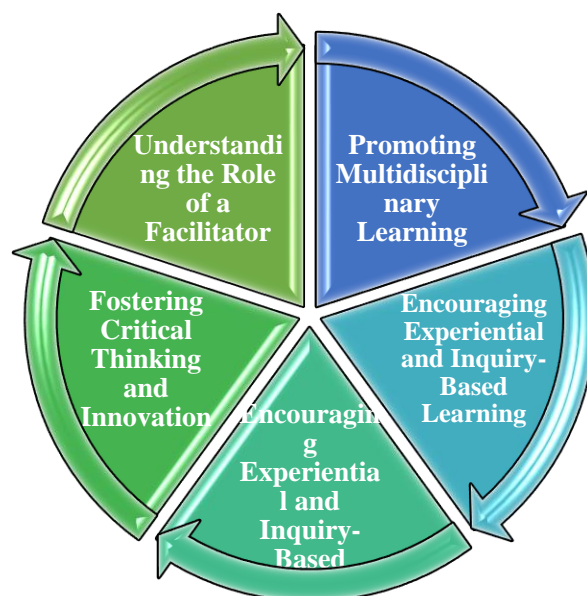


Fig.1.2

1. **Understanding and Preserving Indian Knowledge System:** Teacher education programs must include courses on Indian history, philosophy, and sciences to help educators understand and appreciate IKS. This ensures that teachers can effectively integrate traditional knowledge into their subjects.
2. **Curriculum Integration:** Teachers need to be trained to incorporate elements of IKS into various subjects:
 - Mathematics: Contributions of Aryabhata, Brahmagupta, and Bhaskara in algebra, trigonometry, and calculus.
 - Science: Ancient Indian advancements in metallurgy, astronomy, and medicine (e.g., Charaka and Sushruta).
 - Philosophy and Ethics: Teachings of Upanishads, Vedanta, and Buddhist philosophy to encourage holistic thinking.
3. **Innovative Pedagogical Approaches:** Teacher education should focus on innovative methods to integrate IKS, such as:
 - Storytelling and oral traditions to explain historical concepts.
 - Project-based learning involving traditional crafts and technologies.
 - Experiential learning through Yoga, Ayurveda, and ecological practices like Vrikshayurveda (plant science).
4. **Use of Multidisciplinary Approach**

National Education Policy (NEP) 2020 emphasizes a **multidisciplinary approach** that aligns with IKS. Teacher training should equip educators with interdisciplinary teaching methods, blending ancient wisdom with modern sciences.
5. **Language and Literature Promotion**

Sanskrit, Tamil, and other classical Indian languages are rich sources of knowledge. Teacher education programs should encourage the use of original texts, ensuring that students engage with authentic sources rather than just translations.
6. **Research and Documentation**

Teachers should be trained in research methodologies to document and revive indigenous knowledge. Encouraging students to explore local traditions and wisdom can further strengthen IKS-based education.
7. **Value-Based Education**

IKS emphasizes ethical living, sustainability, and well-being. Teachers should be role models, imparting moral and ethical values drawn from ancient Indian texts like the Bhagavad Gita, Thirukkural, and Jataka tales.
8. **Collaboration with Traditional Practitioners**

Teachers should be encouraged to engage with traditional scholars, artisans, and rural experts to bring real-world applications of IKS into classrooms.

Indian Knowledge System (IKS) – Role of a Teacher as a Facilitator

A teacher plays a crucial role in reviving, preserving, and promoting the Indian Knowledge System (IKS) in education. Rather than being just an instructor, the teacher acts as a facilitator, guiding students to explore India's rich intellectual traditions while integrating them with modern knowledge.

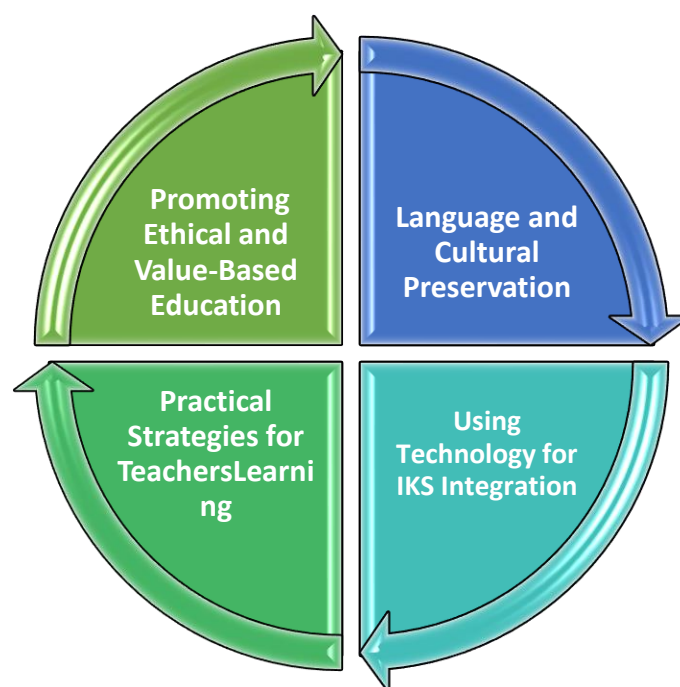


Fig.1.3

1. Understanding the Role of a Facilitator

A facilitator does not merely transfer knowledge but creates an environment where students:

- Discover, analyze, and apply traditional Indian wisdom.
- Connect ancient knowledge with contemporary subjects.

Develop critical thinking and problem-solving skills inspired by IKS

2. Key Roles of a Teacher as a Facilitator in IKS

A. Promoting Multidisciplinary Learning

- Integrating IKS into science, mathematics, medicine, philosophy, and arts.
- Teaching Ayurveda, Yoga, Vedic mathematics, and Indian astronomy alongside modern subjects.
- Encouraging students to explore Indian contributions in diverse fields.

B. Encouraging Experiential and Inquiry-Based Learning

- Using storytelling, case studies, and discussions to teach IKS principles.
- Organizing hands-on activities like Vedic chanting, Yoga practice, and traditional Indian arts.
- Encouraging research on local traditions, folk wisdom, and indigenous practices.

C. Nurture Critical Thinking and Innovation

- Encouraging students to question, interpret, and analyse ancient texts rather than memorizing them.
- Connecting IKS with modern STEM innovations (e.g., using Panini's grammar rules in AI and linguistics).
- Guiding students to develop projects based on Indian traditional knowledge.

D. Promoting Ethical and Value-Based Education

- Teaching Dharma (righteousness), sustainability, and social harmony from texts like the Bhagavad Gita and Thirukkural.
- Instilling values of compassion, integrity, and respect for nature.
- Encouraging sustainable practices like organic farming (Vrikshayurveda) and traditional water conservation.

E. Language and Cultural Preservation

- Encouraging the study of Sanskrit, Tamil, and other classical languages for accessing authentic texts.
- Promoting regional literature, folk traditions, and oral histories.
- Helping students engage with ancient manuscripts and their modern applications.

F. Using Technology for IKS Integration

- Leveraging digital tools, e-learning platforms, and AI translations to make IKS more accessible.
- Encouraging students to use online archives for research on ancient Indian knowledge.
- Implementing virtual reality (VR) and gamification to create immersive IKS experiences.

3. Practical Strategies for Teachers

- ✓ Organizing field visits to historical sites, Ayurveda centers, and Gurukuls.
- ✓ Collaborating with traditional scholars and practitioners for guest lectures.
- ✓ Designing multidisciplinary projects linking IKS with modern studies.
- ✓ Encouraging students to explore local and indigenous knowledge through research.
- ✓ Creating an inclusive learning space where ancient and modern knowledge coexist.

Conclusion:

A teacher, as a facilitator, plays a transformative role in bridging India's past with the future. By revitalizing IKS in education, teachers nurture a generation that appreciates India's intellectual heritage while applying it to solve modern challenges. The Qualitative and Quantitative research has been followed the google form survey circulated with Teachers in all Grades Where 13 question were asked & 27 Responses given as far the analysis more than 88% said IKS is important and should be followed by the Educational Institutions. This holistic approach enriches learning, fosters innovation, and promotes national identity. The NEP 2020 envisions the integration of Indian Knowledge Systems across all levels of education, from schools to higher education, with an emphasis on both teaching and research. The policy aims to preserve and promote IKS alongside modern academic disciplines, ensuring that it contributes to a more holistic education system.

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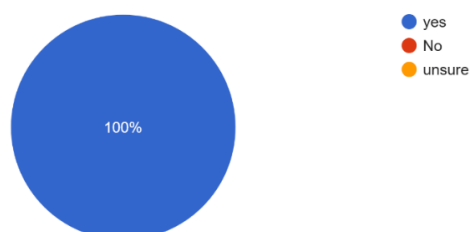
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Appendix:

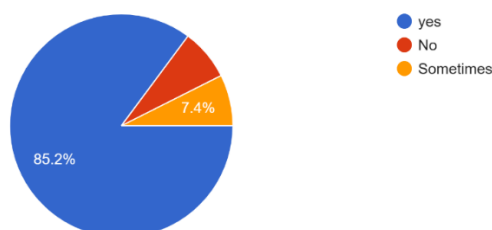
1. Do you think teachers play an important role in promoting Indian Knowledge Systems (IKS)?

27 responses



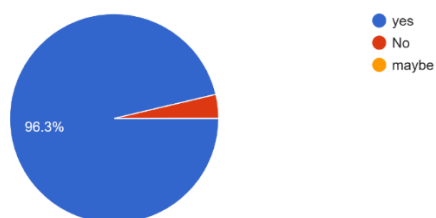
2. Have you ever encountered a teacher who included Indian Knowledge Systems (IKS) in their teaching?

27 responses



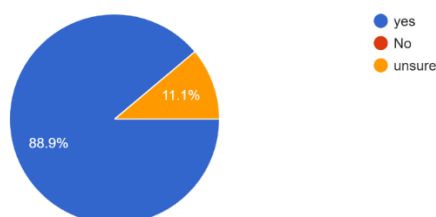
3. Do you think teachers should be trained to teach aspects of IKS in schools and colleges?

27 responses



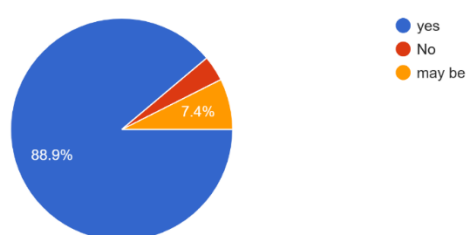
4. Do you believe that integrating IKS into the curriculum can enhance students' cultural understanding?

27 responses



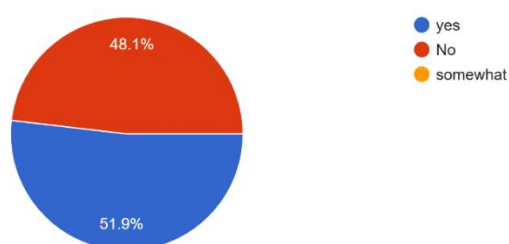
5. Should teachers encourage students to explore Indian philosophical traditions, such as Yoga, Ayurveda, and Vedanta, as part of the education system?

27 responses



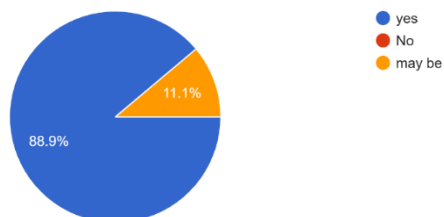
6. Do you think that teachers have enough resources to effectively teach IKS in the classroom?

27 responses



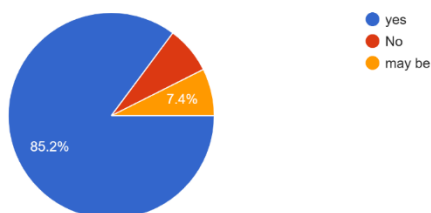
7. Would you support the inclusion of IKS-related workshops or training for teachers to better promote cultural awareness?

27 responses



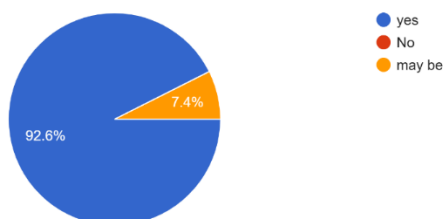
8. Do you think that teachers should create opportunities for students to learn traditional Indian arts (such as dance, music, or crafts)?

27 responses



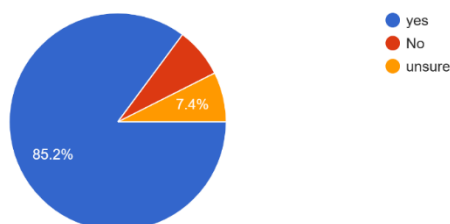
9. Should teachers be encouraged to use modern technology (e.g., digital platforms, online resources) to promote IKS?

27 responses

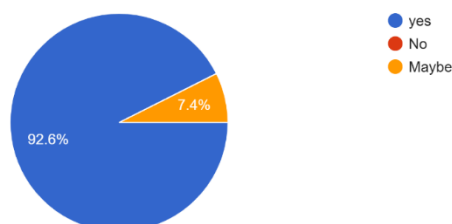


10. In your opinion, is it essential for teachers to incorporate aspects of IKS to foster a balanced and holistic education system?

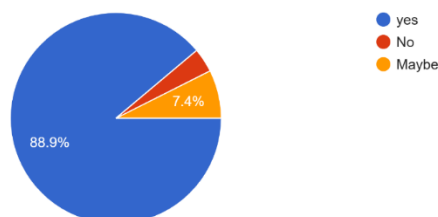
27 responses



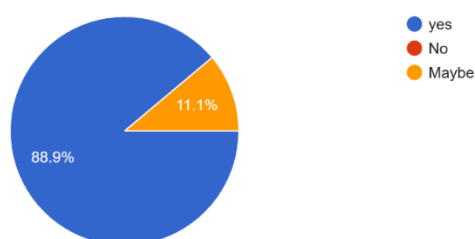
11. Do you think teachers should collaborate with local communities or experts to teach students about traditional knowledge systems?
27 responses



12. Should teachers assess students' understanding of IKS as part of their educational progress?
27 responses



13. Would you like to see more emphasis placed on the role of teachers in promoting IKS in education policies?
27 responses



Google Form <https://forms.gle/zXP59WqAHCKxocjR7>

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