

# Integrating Indian Knowledge Systems in Secondary Education: A Pathway to Holistic Development

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## Abstract

'Integrating Indian Knowledge Systems in Secondary Education: A Pathway to Holistic Development' is a research study that explores the feasibility and significance of integrating traditional Indian knowledge systems (IKS) to support students' holistic development in secondary education. Given the emphasis of the National Education Policy (NEP) 2020 on integrating Indigenous knowledge systems into modern education, this study seeks to examine the influence of Indian knowledge systems on students' intellectual, emotional, and ethical development. The study aims to explore the potential of integrating Indigenous Knowledge Systems of India in secondary school curricula, assess the impact of Traditional Indian Wisdom on promoting holistic development across physical, mental, psychological and metaphysical dimensions, understand educators' and students' perspectives on integrating these systems into mainstream curricula, and identify obstacles and effective strategies for implementing Indian knowledge systems in modern education. Employing a qualitative research methodology, the study focuses on comprehensive analysis through primary and secondary data collection. The findings reveal the possibility of Indian knowledge systems to significantly contribute to the overall development of secondary school students. Students exposed to Indian knowledge systems exhibited enhancements in self-awareness, emotional resilience, and ethical reasoning, aligning with the educational philosophy of Swami Vivekananda. Educators also observed increased engagement and motivation among students, as the traditional knowledge framework fostered a connection between learning and personal development. However, challenges were identified, including the necessity for adequate educator training, insufficient resources for curriculum development, and resistance from segments of the educational community entrenched in Western pedagogical models. Nonetheless, the study underscores the growing acceptance of the relevance of contextualizing education within cultural and historical frameworks. Promising strategies identified involve the use of experiential learning methods such as meditation, yoga, and storytelling, which correspond with the doctrines of Indian knowledge systems, to establish a more balanced and comprehensive educational experience. This research offers insights into the potential impact of Indian knowledge systems in reshaping secondary education into a more holistic and culturally embedded experience, paving the way for education that embrace not only scholastic achievement but also the extra-curricular achievements of the individuals as responsible members of society.

**Keywords:** Indian knowledge systems, holistic development, secondary education, NEP 2020, Swami Vivekananda, experiential learning.

## Introduction

The extensive and diverse Indian Knowledge Systems (IKS) have developed over thousands of years, covering areas such as philosophy, science, mathematics, medicine, architecture, and the arts (Vaz, 2024). The necessity of incorporating Indian Knowledge Systems (IKS) into the secondary school system in order to support holistic development and protect India's rich cultural legacy is becoming more widely acknowledged. (*How Students Can Benefit from the Indian Knowledge System Scheme Implemented by the Government*, 2024).

One of the main areas of the current research studies that aim to protect India's cultural legacy and promote students' holistic development is the incorporation of Indian Knowledge Systems (IKS) into secondary schooling. (S. K. Sharma & Makhijani, 2023) Indian knowledge systems, rooted in philosophies like the Vedas, Upanishads, Ayurveda, Yoga, and the wisdom of scholars like Swami Vivekananda, provide an alternative framework for holistic education, placing emphasis on self-awareness, character development, and the interconnectedness of personal growth and societal responsibility. In order to address the demand for a more comprehensive and culturally sensitive education system in India, the National Education Policy (NEP) 2020 supports the implementation of Indian Knowledge Systems (IKS) into secondary school curricula.

## Objectives

Objectives of the Study are

1. To explore the need of integrating Indian knowledge systems in secondary education.

2. To evaluate the potential of IKS in promoting holistic development—covering physical, mental, psychological, ethical dimensions.
3. To understand the perceptions of educators and students regarding the incorporation of these approaches being incorporated into regular curriculum.
4. To identify challenges and best practices for the effective implementation of IKS in modern education.

### Research Methodology

This study utilizes a qualitative research methodology, focusing on in-depth analysis through primary and secondary data collection. Interviews with educators, students, and curriculum developers were conducted to understand their perspectives and experiences related to IKS. Group discussions were held with students to gain insights into their experiences and how traditional knowledge systems have influenced their holistic development. Secondary data was gathered from academic papers, historical texts, and government reports on NEP 2020 and Indian knowledge systems. Thematic coding was employed to identify common patterns, insights, and contradictions within the data.

### Related Literature

This literature review synthesizes key findings from various studies exploring the implications, benefits, and methodologies associated with the incorporation of IKS in educational curricula. Several studies have highlighted the need and importance of unifying IKS into secondary education. IKS is deeply rooted in ancient Indian texts, including the Vedas, Upanishads, and various philosophical treatises, encapsulating traditional knowledge and insights into disciplines such as mathematics, astronomy, and medicine.

In order to address societal issues and foster a more accessible atmosphere for learning, the National Education Policy (NEP) 2020 emphasises the significance of incorporating IKS into modern education (Ministry of Human Resource Development, 2020). A study by (Mishra et al., 2024) found that, there are many advantages to implementing traditional Indian knowledge systems into secondary education, such as the advancement and safeguarding of India's cultural treasures, the encouragement of innovation and creative thinking by utilising age-old wisdom, and the development of students' sense of pride and belonging in their country.

Similarly, a report by the Ministry of Education (Ministry of Human Resource Development, 2020) highlights the value of connecting traditional Indian knowledge systems into secondary school curriculum, pointing out that these systems are based in Vedic literature and are intended to encourage and promote additional research to address modern societal challenges (Vaz, 2024)

### Discussion

#### Holistic Development

Comprehensive growth of an individual, involving intellectual, emotional, social, physical, and spiritual dimensions, is known as holistic development. It is an integrative approach to growth that takes into account all aspects of an individual's life, unlike traditional development models that may only focus on cognitive or physical growth. Holistic development aims to promote a balanced and interconnected advancement of all dimensions—intellectual, emotional, social, physical, and spiritual. It is based on various philosophical and psychological theories that emphasize seeing individuals as whole beings rather than fragmented parts.

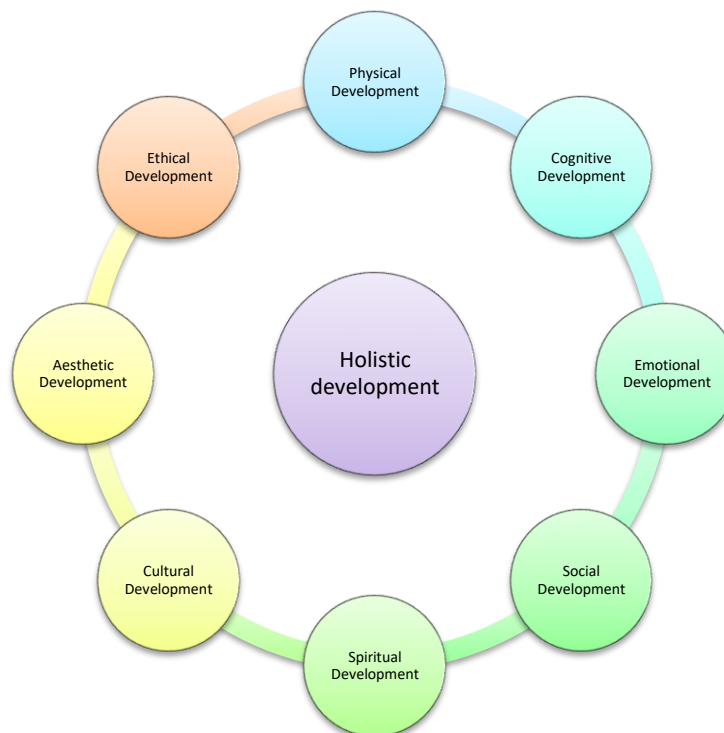
Key theories informing holistic development include Maslow's Hierarchy of Needs, which emphasizes fulfilling a range of human needs for holistic well-being, Erikson's Psychosocial Development stages, highlighting the importance of social and emotional growth, and Bronfenbrenner's Ecological Systems Theory, which underscores the impact of multiple environmental systems on an individual's development.

#### Dimensions of Holistic Development

Various dimensions influence the overall growth and well-being of an individual in holistic development. Intellectual development involves nurturing cognitive abilities, critical thinking, creativity, and acquiring knowledge essential for problem-solving and adapting to new challenges. Emotional development involves nurturing emotional intelligence, self-awareness, and managing and expressing emotions in a healthy manner, crucial for building resilience and fostering positive relationships. Social development involves forming and maintaining relationships, understanding social norms, and being beneficent to the community, fundamental for instilling a sense of pride and interconnectedness.

Physical development encompasses the growth and maintenance of the body through physical activity, nutrition, and overall health, supporting other aspects of development by providing the energy and vitality needed for learning and engagement. Spiritual development involves exploring meaning, purpose, and values and often involves connecting to something greater than oneself, whether through religion, philosophy, or personal reflection

**Figure 01 Dimensions of Holistic Development.**



### **Holistic Development in Education**

In education, holistic development is increasingly acknowledged as a crucial goal. Traditional education systems often prioritize academic achievement, sometimes at the expense of other developmental areas. However, holistic education aims to develop the whole child, fostering not only intellectual abilities but also emotional, social, physical, and spiritual growth. Approaches such as Montessori, Waldorf, and Reggio Emilia emphasize experiential learning, creativity, and the maturing moral and ethical values, aligning closely with the doctrines of holistic development.

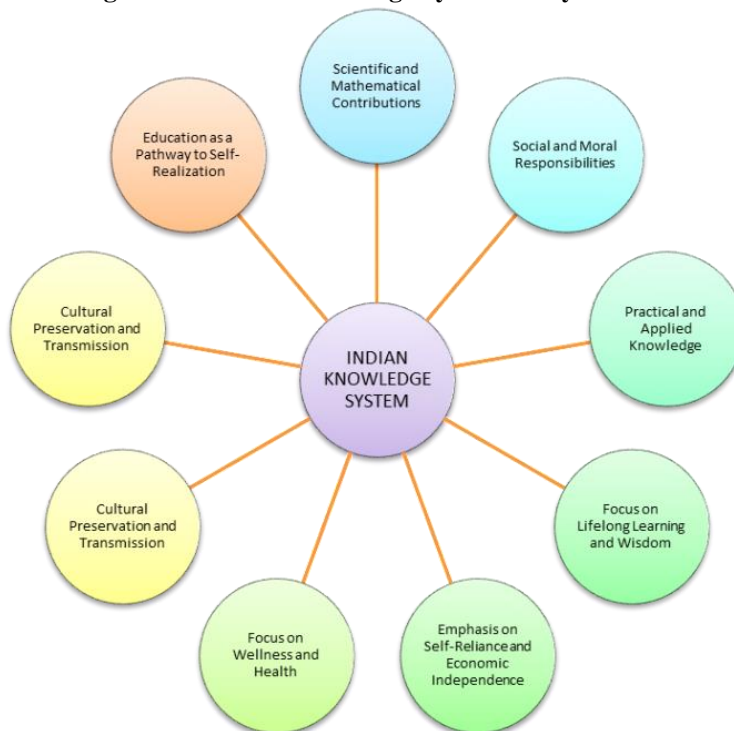
### **The Indian Knowledge System (IKS)**

The Indian Knowledge System (IKS) denotes the rich and ancient body of knowledge that originated in India and has evolved over millennia. It is deeply embedded in the country's cultural, philosophical, scientific, and spiritual traditions and disciplines, including philosophy, science, arts, language, mathematics, medicine, and governance. IKS is characterized by its holistic approach, seeking harmony between the material and spiritual aspects of life.

It is an extensive and ancient tradition encompassing diverse fields of knowledge, philosophy, and culture, emphasizing a multi-dimensional approach that highlights the interdependency of all the fields of knowledge, including science, philosophy, art, and spirituality. It views the human being as an integrated entity of body, mind, and spirit, with education emphasising on whole person's development rather than just one aspect. Indigenous Knowledge Systems of India places spirituality as a core component of knowledge, encompassing an understanding of life, existence, and the universe, not limited to religion. Concepts such as "Atman" (self), "Dharma" (duty/righteousness), and "Moksha" (liberation) are central to this system.

Another crucial component is value-oriented instruction, which incorporates morality, ethics, and values into the classroom with the goal of fostering characteristics like humility, non-violence, compassion, and honesty in addition to intellectual development. IKS focuses on practical wisdom and the application of knowledge in everyday life, demonstrated through fields like Ayurveda (medicine), Yoga (mind-body discipline), Vaastu Shastra (architecture), and Jyotisha (astronomy/astrology). It covers a wide range of disciplines such as science, mathematics, medicine, linguistics, philosophy, arts, politics, and economics, encouraging cross-disciplinary study. Ancient Indian traditions advocate for sustainable living and harmony with nature, emphasizing the need of conserving the environment and living sustainably.

**Figure: 02 Indian Knowledge Systems: key features**



The primary goal of IKS is the pursuit of self-realization and inner wisdom, believing that true knowledge leads to liberation (Moksha). The inward journey, through meditation, contemplation, and yoga, is considered essential for intellectual and spiritual growth. IKS is inclusive and pluralistic, promoting dialogue among various schools of thought, respecting diverse perspectives and accepting multiple ways of attaining knowledge and truth. The traditional Indian system of education relied heavily on the Guru-Shishya (teacher-student) model, where knowledge was passed down orally through close interaction between the teacher and the student. IKS draws heavily from ancient Indian texts such as the Vedas, Upanishads, Puranas, Shastras, and various other treatises, providing a vast repository of knowledge on subjects ranging from metaphysics to governance, demonstrating that IKS is not just a knowledge system but a way of life that integrates material and spiritual pursuits, with a focus on the overall well-being of individuals and society.

#### Indian Knowledge System and Harmonious Development

**Table: 01 Indian Knowledge System v/s Harmonious Development.**

Aspect	Indian Knowledge System (IKS)	Relationship to Harmonious Development
Holistic Understanding	IKS emphasizes a holistic approach, integrating knowledge of self, nature, and the universe.	Promotes balance and harmony in personal and societal development.
Cultural Heritage	Rich literary and philosophical traditions, including Vedic texts and practices like Ayurveda.	Encourages respect for cultural diversity and sustainable practices, fostering social harmony.
Interconnectedness	Recognizes the interdependence of humans and nature, advocating for sustainable living	Supports environmental harmony and ethical living, crucial for societal well-being.
Value-Based Education	Imparts values such as compassion, respect for nature, and truth-seeking.	Fosters ethical leadership and social responsibility, contributing to a harmonious society.
Practical Applications	Provides practical tools through yoga, meditation, and traditional crafts.	Enhances individual well-being and community resilience, essential for harmonious development.

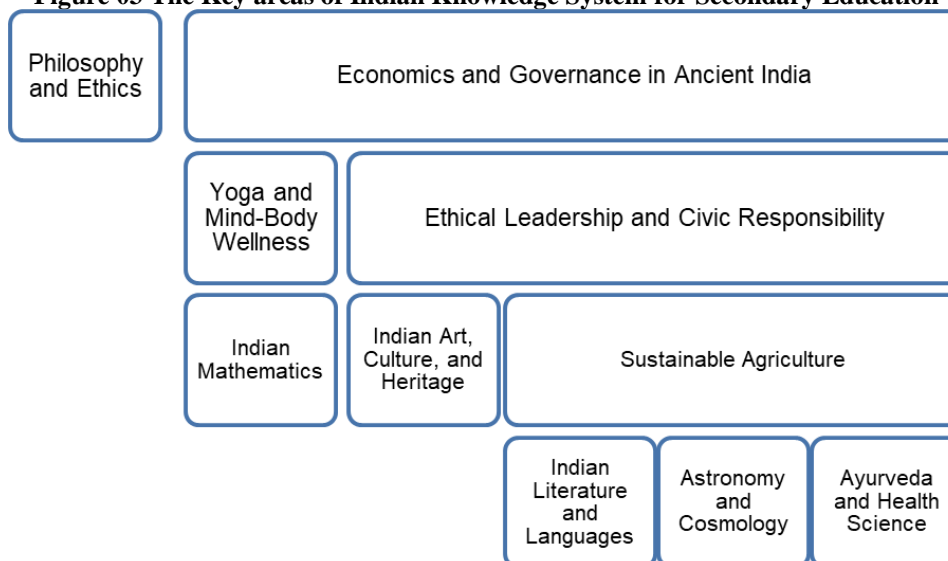
Integration with Modernity	Aims to blend traditional wisdom with contemporary knowledge systems.	Facilitates innovation while maintaining cultural identity, promoting balanced progress.
Community Focus	Emphasizes collective well-being through concepts like "sangha" (community).	Strengthens social bonds and cooperation, vital for harmonious living in diverse societies.

The Indian Knowledge System (IKS) contributes to balanced development by encompassing a general outlook of life, cultural heritage, interconnectedness with nature, value-based education, practical applications, and integration with modernity, and community focus. Each facet reinforces the notion that personal growth is linked with societal harmony and environmental sustainability.

### Key Areas of Indian Knowledge System for Secondary Education

Secondary school curricula may integrate the Indian Knowledge System (IKS) into key subjects like Indian philosophy and ethics, drawing on teachings from philosophical texts such as the Upanishads and the Bhagavad Gita to promote values like compassion, non-violence, and social responsibility (Baral, 2024). It is essential to emphasize the expansion of ethical values like truth (Satya), non-violence (Ahimsa), compassion (Karuna), and selflessness (Nishkama Karma). Utilizing concepts from Vedic mathematics, astronomy, and traditional medicine (Ayurveda) can make the teaching of modern mathematics and science more culturally relevant and engaging (S. K. Sharma & Makhijani, 2023). Furthermore, studying classical Indian art forms, such as music, dance, and literature, can help students gain a pride for the richness and diversity of India's old age wisdom. Introducing students to yoga postures, breathing exercises (Pranayama), and meditation techniques to promote physical, mental, and emotional well-being is an important aspect of the Indian knowledge system. Physical education incorporating traditional Indian martial arts like Kalaripayattu and yoga-based fitness routines should also be included in the school curricula. Additionally, learning the basics of Sanskrit, Pali, Prakrit, Tamil, and other classical Indian languages helps the learners to reach ancient texts and literature. Exposure to classical Indian literature such as the epics (Ramayana, Mahabharata), poetry (Kalidasa), and stories from Panchatantra and Jataka tales can foster creativity, imagination, and moral development. To nurture creativity, it is important to learn Indian classical music (Hindustani, Carnatic) and dance forms (Bharatanatyam, Kathak, Odissi). Furthermore, teaching the ancient Indian wisdom of living in harmony with nature, the concept of "Prakriti" (nature), and sustainable practices is important. It is equally important for students to understand indigenous agricultural knowledge, including crop cycles, organic farming techniques, and the sustainable use of natural resources. Introducing students to the contributions of India in fields like science, mathematics (Aryabhata, Bhaskara), medicine (Charaka, Sushruta), and philosophy is essential. Learning from texts like Arthashastra (by Kautilya) and understanding the ancient systems of governance, economic policies, and statecraft is crucial. Additionally, the traditional art of structured debate can enhance communication skills, argumentation, and the ability to think deeply about philosophical and moral questions.

**Figure 03 The Key areas of Indian Knowledge System for Secondary Education**



Utilizing moral tales from Indian scriptures such as the Panchatantra, Jataka Tales, and the Mahabharata to instil life skills, problem-solving capabilities, and ethical reasoning is crucial. Integration of Indian leadership principles that emphasize



empathy, community service (Seva), and setting a good example is also essential. Incorporating traditional Indian architectural principles, including constructing buildings in harmony with nature, holds significant importance. Lastly, understanding India's diverse architectural heritage and the necessity of preserving historical monuments is vital. Integrating these focal points into secondary education would be in line with the objectives of the National Education Policy (NEP) 2020, which stresses the resurgence of Indian Knowledge Systems for comprehensive development.

### **Relevance of Integrating IKS in Secondary Education**

The introduction of Indian Knowledge Systems (IKS) in secondary education curricula is extremely pertinent and well-timed, as it is in line with the goals of the National Education Policy (NEP) 2020 and meets the requirement for a more comprehensive and culturally responsive education system in India. (Kumawat, 2021) India possesses a rich and diverse cultural heritage shaped by centuries of ideological and ethical traditions. Integrating Indian Knowledge Systems (IKS) into secondary education allows schools to play a vital role in preserving and promoting this heritage, while fostering a sense of accomplishment and belongingness among students. This is particularly significant in an era of globalization, where traditional knowledge systems are under threat of being overshadowed by Western-centric curricula.

Indian Knowledge Systems highlight the importance of nurturing the whole individual, including their cognitive, emotional, and spiritual dimensions. By embedding IKS into secondary education, schools can promote a more holistic approach to learning that extends beyond merely acquiring information and skills. Students can explore the interconnectedness of all aspects of life, the significance of ethical behaviour, and the value of mindfulness and introspection. The Indian Knowledge Systems are intrinsically multidisciplinary, drawing wisdom from diverse fields such as philosophy, science, mathematics, and the arts. Incorporating IKS into secondary education allows schools to inspire students to find links between various subjects and to approach challenges from diverse angles. This can cultivate the ability to think critically, innovation, and problem-solving capabilities, all of which are vital for success in the 21st century. (K. & D., 2024). Many of the challenges facing the world today, such as climate change, social inequality, and mental health issues, have roots in the way we think about and interact with the world. The Indian Knowledge Systems offer alternative perspectives and solutions that can complement and enrich contemporary approaches to these challenges. By incorporating IKS into secondary education, schools can equip students with the knowledge and tools they need to negotiate these issues in innovative and sustainable ways. (Kalan, 2023)

In education, the National Education Policy (NEP) 2020 highlights the value of advancing Indian languages, art forms, and tradition. Recognising the importance of traditional knowledge systems in enhancing the educational experience and advancing a more inclusive and equitable educational system, it expressly asks for the inclusion of IKS into curricula at all educational levels. (Baral, 2024) The effective execution of NEP 2020 and the shaping of education in India can be facilitated by schools through the integration of IKS into secondary education.

The integration of Indian Knowledge Systems (IKS) into secondary education curricula is both timely and highly relevant, aligning with the core principles of the National Education Policy (NEP) 2020 and addressing the need for a more inclusive and culturally attuned education system in India. By preserving cultural heritage, promoting holistic development, fostering interdisciplinary learning, and tackling modern challenges, the incorporation of IKS can significantly shape the future of education in India. It is therefore essential for schools, educators, and policymakers to collaborate in developing effective strategies for implementing IKS in secondary education, ensuring that its advantages are accessible to all students.

### **Challenges**

Integrating Indian Knowledge Systems (IKS) into classrooms presents various obstacles that educators must navigate to a successful and meaningful implementation. Educators may not have a comprehensive understanding of the depth and breadth of IKS or its potential benefits for student learning, which can make it challenging to effectively incorporate IKS into their lessons and engage students in meaningful discussions about traditional knowledge systems (S. K. Sharma & Makhijani, 2023) IKS, often passed down orally or through traditional practices, presents difficulties in finding well-documented and reliable resources for classroom use. Additionally, the absence of standardized curricula and teaching materials specifically designed for integrating IKS can hinder its implementation in schools (R. Sharma & Maheshwari, 2024) Some educators may resist incorporating IKS into their teaching due to concerns about academic rigor, relevance, or cultural appropriation, and overcoming this resistance requires effective communication, professional development, and a deep knowledge of the value and authenticity of IKS (Education et al., 2023). Balancing the inclusion of IKS into the curriculum with teaching modern, globally relevant knowledge and skills is important to make sure that students receive a well-rounded education (Ambika, 2024) It is imperative to guarantee that the IKS being taught is authentic, accurate, and respectful of cultural sensitivities to avoid potential misrepresentations or oversimplifications of traditional knowledge systems, which can lead to cultural appropriation or disrespect (Mishra et al., 2024).

Many teachers may lack adequate training in IKS or effective strategies for integrating it into their teaching practices, making it essential to provide professional development opportunities for teachers to learn about IKS and develop appropriate teaching methods. Educators must also be mindful of potential barriers, such as language differences or lack of accessibility with conventional practices, and work to create inclusive learning environments to make sure that IKS is attainable and equitable for all students, leaving aside of their cultural background or socioeconomic status. Educators can collaborate with IKS experts, community members, and local organizations to develop appropriate teaching resources and strategies to overcome these challenges. Providing ongoing professional development and support for teachers, as well as promoting a system of openness and respect for diverse knowledge systems, can also contribute to the successful integration of IKS in classrooms.

## Findings

The influence of the Indian Knowledge System (IKS) on the holistic progress of secondary students is diverse, encompassing educational, cultural, and ethical aspects. IKS advocates for a comprehensive approach to learning that highlights the interconnections of knowledge across various subjects. By the inclusion of India's old age wisdom with current disciplines, students develop critical thinking skills and a broader grasp of different fields. This interdisciplinary method fosters creativity and problem-solving abilities, preparing students to effectively address contemporary challenges. Infusing IKS into the curriculum instills a sense of cultural pride in students. Studying ancient texts like the Vedas and epics like the Mahabharata enables students to recognize India's rich intellectual traditions. This cultural affinity enhances their identity and nurtures a sense of belonging, which is crucial for balanced development. IKS underscores values such as compassion, respect for nature, and ethical decision-making.

By integrating these values into the educational framework, students are nurtured to become socially responsible individuals who make positive contributions to society. This value-based education cultivates empathy and ethical leadership among young learners. The teachings within IKS often include practical applications, such as sustainable agricultural practices from ancient texts like the Arthashastra and holistic health principles from Ayurveda. By learning these practices, students can address contemporary issues like climate change and health crises with time-tested solutions. This practical approach enhances their ability to effectively tackle real-world problems. Engaging with IKS has been demonstrated to enhance cognitive functions through practices such as yoga and meditation.

These activities improve focus, emotional regulation, and resilience among students, contributing to their overall well-being and academic performance. IKS encourages community involvement by connecting students with local cultures and traditions. This engagement fosters a sense of responsibility toward preserving cultural heritage while promoting social cohesion within communities. The National Education Policy (NEP) 2020 stresses the integration of IKS into all levels of education, including secondary schooling. This initiative aims to connect traditional knowledge with modern educational practices, ensuring that students are well-rounded individuals equipped to contribute to society harmoniously.

## Conclusion

In conclusion, the Indian Knowledge System profoundly influences the balanced development of secondary students by advocating for holistic education, cultural pride, ethical values, practical knowledge application, cognitive benefits, community engagement, and integration into modern curricula. Together, these aspects cultivate well-rounded individuals prepared to navigate the complexities of today's world while remaining rooted in their cultural heritage.

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