

A Theoretical Framework for Integration of Indian Knowledge System in Foundational and Preparatory School Education

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Abstract

Indian Knowledge System (IKS) and education as in NEP 2020 envisions a holistic approach to foster deeper understanding of India's rich culture and heritage among students. It aims to broaden students' perspective and deepens their understanding of human knowledge. Teachers are also encouraged to know about IKS with pedagogy for more effective and engaging education. NEP 2020 places strong emphasis on integrating IKS into the National Curriculum Framework for Foundational Stage and School Education.

This paper describes a conceptual framework for identification of components, its validation and relevance to integrate IKS at foundational and preparatory education. It recognizes the component of IKS that need to connect with mainstream education. Here nine components of IKS are identified from review of NCF-FS and others sources i.e. Panchkosh, Ashtang Yoga, Tridosh, Triguna Theory, Panchbhut, Purusarth, Panchadi, story of Panchatantra, Hitopadesh and Jatak, Value education from Ramayana and Mahabharata. It also categorises these nine components into three i.e. holistic education, value integration and teaching methods. All three supports the implementation of NEP 2020 integration with IKS at all levels of education. Components have been validated by school teachers. Validation has been done through Focus group discussion with 39 teachers of Hindi medium and English medium, UP Board and CBSE Board schools.

Keywords- Indian Knowledge System, NEP 2020, NCF-FS, NCF-SE, Panchkosh etc.

Introduction

Education plays a pivotal role in the development of human resources, which is a demographic dividend for any country. Providing a good-quality education to every citizen is

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a prime focus for any nation. Sustained economic growth, harmonious integration, and preservation of social and cultural practices can only be achieved through a highly categorized and extensively developed Indian (indigenous) Knowledge System (IKS).

IKS can help in preserving India's intellectual heritage while cultivating an inclusive, culturally grounded approach to learning. However, its effective integration requires a systematic approach involving curricular interventions such as introducing foundational IKS courses, integrating IKS perspectives across disciplines, promoting research and innovation, providing experiential learning, collaborating with knowledge holders, and building faculty capacity. Education is the cornerstone of societal progress, shaping individuals and societies. However, the modern Indian education system has often been criticized for emphasizing rote learning, disconnected from India's rich cultural heritage and diverse knowledge systems (Batra, 2015). Therefore, providing good-quality education embedded in ancient Indian knowledge to each and every citizen is a prime focus of the Indian education system.

Relevance to integrate IKS at the foundational and preparatory stages of Education

The new education policy gives an opportunity for the integration of India's rich heritage of knowledge into mainstream education. The integration facilitates an extensive understanding of Indian philosophy, the Indian value system, and the Indian education system, combining the best of traditional knowledge and the modern needs of students. What are the treasures of ancient India? "The aim of education in ancient India was not just the acquisition of knowledge as preparation for life in this world, or life beyond schooling, but for the complete realization and liberation of the self." In such a context of liberation of the self, which is inextricably linked with education, the NEP 2020 is going to affect all the stakeholders in one way or another; the most direct effect is on the students and teachers. The National Education Policy (NEP 2020) recognizes the importance of our traditional knowledge and its conservation. We need to create awareness regarding IKS. Even though our ancient knowledge is very old, it is still relevant for the modern day. NEP 2020 focuses on the holistic development of children, which becomes effortless by integrating the Indian knowledge system into their educational journey. Creativity and innovation are also the focal points of NEP 2020. Our Indian Knowledge System focuses on the uniqueness of every individual and promotes pride in our cultural heritage among learners. So, incorporating IKS in our schools can increase the confidence and mental growth of the students.

Identification of the component of IKS:

This paper aims to find out the components of IKS which need to be integrated at foundational and preparatory stage education before proposing any theory or concept in mainstream education. There must be strong relevance of that theory or concept with the contemporary education so that it can enhance the education system. Therefore, finding out the component of IKS needs a review of educational policy documents, books, and articles. A review of different literature helps to find out the components that are relevant to be integrated at foundational and preparatory education.

As the NEP 2020 emphasizes on a holistic approach to education is particularly relevant at the stage of foundational and preparatory education. So the opportunity to integrate a holistic view of education identified nine components into three major dimensions. These dimensions are holistic development of children, value education, and the teaching-learning process.

Holistic development of children—Holistic development refers to the physical, mental, intellectual, social, and emotional growth of a person (Channawar, 2023). There are five aspects of the holistic development approach, i.e., physical development, social development, emotional development, intellectual development, and spiritual development. Components that cover holistic development are Panchkosh, Triguna theory, Tridosh, Ashtang Yoga, and Panchbhut.

Value Education— Beyond merely teaching information, value education aims to inculcate in pupils a set of fundamental beliefs and ideals that will direct their conduct, decisions, and deeds for the rest of their lives. Among these principles are integrity, accountability, empathy, honesty, and respect. Value-based education's main objective is to develop morally upright citizens who make valuable contributions to society in addition to knowledgeable persons. Value education includes Panchatantra, Jatak and Hitopadesh, Purusarth theory, and learning from Ramayana & Mahabharat.

Teaching-Learning Process: The teaching-learning process exists between teachers and students; in this process, knowledge of a certain area is transmitted among each other. It is a process where a teacher evaluates learning needs, establishes particular learning objectives, and develops new learning and teaching strategies. The teaching-learning process covers Panchaadi.

Validation process and teachers' perception of components:

The researcher identified the IKS components through an extensive review to understand their relevance and intensity at the foundational and preparatory stages. Each component is aligned to a particular aspect so that component could be placed in dimensions. Researcher framed a tool draft of identified components with their descriptions and conducted a study in U.P. and CBSE schools. Researchers conducted a study with teachers of the foundational and preparatory stages. Researchers visited U.P. Board and CBSE Board schools and shared drafts with teachers and had focus group discussions on different aspects of the component and its relevance to foundation and preparatory education. Focus group discussion was done with 39 teachers from 6 schools of Prayagraj district at the start of session 2024-25. The sample for the focus group discussion was selected purposively, and each focus group was given 40 to 50 minutes for the discussion. The participants have to report on whether they agree or disagree on the given tool of the components and put forward their views on the integration of identified components. Identified nine components shared with teachers, and along with discussion of its relevance, along with need of any other components could be integrated at the foundational and preparatory stages of education.

Table 1: Sample Distribution for Focus Group Discussion

S.No.	Focus Group	Medium of schools & Board	No. of Teachers in Group
1	Focus Group 1	Hindi Medium + U.P. Board	5
2	Focus Group -2	Hindi Medium + U.P. Board	3
3	Focus Group- 3	Hindi Medium + U.P. Board	4 (3+1Anganbadi)
4	Focus Group- 4	English Medium + CBSE	9
5	Focus Group- 5	English Medium + CBSE	14
6	Focus Group-6	English Medium + CBSE	4

Firstly, the researcher introduces the aim of the study, a brief about the topic and component of tool. With the consent of the participant teacher, the entire observation of the discussion was noted down by the researcher. The systematic gathering of data, which was observation notes of the entire discussion and a draft of identified components, is used for analysis of data. Data analyses on the basis of responses of teachers on a given tool and a summary of observations on component integration at foundational and preparatory education. School

teachers were interested to integrate these components into their teaching and eager to know more about the strategies to integrate IKS at foundational and preparatory education.

Finding of focus group discussion:

- There should be integration of stories of Ramayana and Mahabharata along with learning of Geeta that inculcate family values and give insight to students to be responsible citizens.
- Understanding of Tridosh theory needs enough training for teachers, although Tridosh theory is an important theory, but its integration at the foundational and preparatory levels is not much needed.
- To make a successful integration of identified components, there needs to be a way of training teachers so that proper integration of IKS could be possible through teaching strategies and pedagogical practices.

All the teachers agreed with the identified components except for the Tridosh theory. They appreciated the integration of identified components in the teacher training curriculum and the integration of these components in teaching and learning strategies, curriculum development, and pedagogical practices.

Table 2: Components with Dimensions

S. No.	Dimensions	Components
1.	Holistic Development of Children	Panchkosh
		Triguna Theory
		Panchbhut
		Ashtang Yoga
2.	Value Education	Panchtantra, Jatak and Hitopadesh,
		Purusarth theory
		Learning from Ramayana & Mahabharat
3.	Teaching Learning Process	Panchaadi

Description and relevance of identified components

Panchkosh: There are numerous personality theories that exist in psychology, including Western and Indian theories. The concept of personality developed in the Taittiriya Upanishad is a combination of physical, mental, intellectual, and spiritual dimensions. This Vedantic psycho-philosophical theory (Satpathy, 2018) of human personality describes five sheaths of personality that are Annamaya Kosha, Pranamaya Kosha, Manomaya Kosha, Vigyanmaya Kosha, and Anandmaya Kosha.

To consider the Indian tradition in mainstream education, the National Curriculum Framework for Foundational Stage 2022 proposed to integrate Panchkosh theory for nurturing the holistic development of children (NCF-FS, 2022, pg. 19).

Annamaya Kosha represents physical development that is characterized by growth of body parts, development of skills, and control of organs. Pranamaya Kosha is about pranic development, which is for control and regulation of impulses and restraints. Manomaya Kosha relates to the mental development that includes concentration, balance, and spirit. Vigyanmaya Kosha is intellectual development characterized by memory, perception, discretion, judgment, chance, prediction, observation, and the ability to differentiate. Anandamaya Kosha indicates spiritual development represented by love, joy, realization of abhaya, beauty awareness, creativity, and development of virtues (Panchal et al., 2023).

Triguna Theory: Many Indian scholars assume human personality contains physical, mental, and spiritual aspects (Singh et al., 2016). Understanding of triguna theory takes into account a wider array of personality aspects that influence the identification of the traits of students. Triguna means three qualities, or gunas, of Prakriti, i.e., Sattva means balanced, Rajas means passionate, and Tamas means dull. It is related to the physical, social, psychological, and spiritual aspects of personality. These three gunas are mentioned in Atharveda, and all gunas act together and determine the complete individual's personality (Dhulla, 2014). As certain gunas demonstrate specific qualities in behavior, it depends on the dominance of guna in an individual.

Sattva is defined as humility, intelligence, goodness, purity, knowledge, peace, stability, self-awareness, sensitivity, control, and harmony. It is also conceptualized as clearness, truth, determination, discipline, and detachment (Singh [et al.](#), 2016). Rajas is conceptualized as

impure, bad, a lack of control over emotions, passionate, anxious, desirous, and greedy. Rajas theorized overactivity, dissatisfaction, materialistic mentality, and extraverted instability. Similarly, *tamas* is defined as neutrality, fear, sorrow, lethargy, low self-confidence, low self-respect, mental imbalance, anger, arrogance, procrastination, and inertia. (Singh et al., 2016)

Ashtanga Yoga: Sage Patanjali is the originator of yoga philosophy and compiled the Yoga Sutra. Patanjali's Yoga Sutra propounds the Ashtanga Yoga, or the yoga having the following eight *angas*, or limbs: *Yamas* (social observances), *Niyamas* (personal observances), *Asanas* (steady and comfortable postures catering primarily to physical and physiological health), *Pranamaya*, *Pratyahara*, *Dharana*, *Dhyana*, and *Samadhi*.

Ashtanga Yoga of Patanjali is holistic in that it caters to the social, physical, physiological, mental, intellectual, and spiritual dimensions of human personality (Rao, n.d.). The practice of Ashtanga Yoga purifies the mind of negative ideas or behaviors and cultures oneself towards positive behavior through *Yama* (Sahay, n.d.). *Niyama* represents discipline (Sharma, n.d.). The third limb of the system is *Asana*, which impacts the mind, making the mind calm and quiet, facilitating emotional control and intellectual clarity with the practice of physical practice (Mehta, n.d.). Fourth limb *pranayama* helps to hold the vital force (Tiwari, n.d.). These are the *Bahiranga yoga*. *Bahiranga yoga* acts as a tool for the refinement of body and mind. *Antaranga yoga* (*Pratyahara*, *Dharana*, *Dhyana*, and *Samadhi*) brings about spiritual solace (Dhavale & Nimbalkar, n.d.). Integration of all *Bahiranga yoga* at foundational and preparatory education appears with the balanced and dynamic personality of the child.

Panchbhutas—Human activity causes serious hazards to the environment, which threaten the lives of living beings. After a huge damage, humans have now awakened for the protection of the environment. In ancient India, nature, like air, water, earth, ether, and fire, was considered as gods. This shows that there is a need to preserve the environment, and it can be done using either spirituality or scientific reason. Both the methods are towards the protection of nature, life, and generation.

This universe is made up of *Panchmahabhut*, which includes *Akasha*, *Agni*, *Vayu*, *Jala*, & *Prithvi*. As the National Curriculum Framework for Foundational Stage 2022 suggests, early childhood is the right stage to introduce the *Panchmahabhut* by direct experience so that

children can feel a connection with life. It also develops a lifestyle with the environment. It also helps to understand the attributes of Panchbhut that must be needed for an influential and potent personality. There are some foundational principles of Panchmahabhut.

Prithvi stands for stability and solidity; Jala stands for cohesiveness and fluidity; Agni symbolizes transformation, passion, and enthusiasm; Vayu represents dynamism and movement; and last, Akasha stands for space, expansiveness, and consciousness.

Panchtantra, Jatak & Hitopadesh:

Before the invention of any modern electronic equipment like television or computers, listening to and telling stories was the most favorite pastime. Stories were used to pass on real events, history, family connections, and also as entertainment (Kulkarni, 2013). In India, since the Vedic age, there has been a tradition of oral education. Many stories in the ancient text were related to value education. NEP 2020 has emphasized the value of education. Value education is essential for good qualities in life and to develop positive human behavior. NCF-FS 2022 suggests giving students the opportunity to learn ethics and values from traditional Indian funfables and stories from Panchtantra, Jatak & Hitopadesh.

Pandit Vishnu Sharma is the writer of the Panchatantra stories. Panchatantra stories help to teach the importance of honesty and integrity, the value of kindness and compassion, the importance of using their intelligence and wit, the consequences of their actions, etc.

Hitopadesha, meaning “advice that can help,” is a collection of stories that describe good and bad behavior. Hitopadesha is Sanskrit literature consisting of fables with bird and animal characters written by Pandit Narayan Bhatt. Preaching perspective in Hitopadesha shows the value of friendship, concentration, patience, service, the difference between good and bad, & pragmatic wisdom (Dave, 2018). Teachings of stories and precepts of Hitopadesha connect the matters of life and pragmatic wisdom with the current content.

The Jatak word originates from the Sanskrit word ‘Jaatak,’ which means ‘the story of birth. Jatak Katha is a collection of around 547 stories, which are about the life of Buddha. These stories depict Buddhist morality (Ubeysekara, 2021).

Learning from the Ramayana & Mahabharata: Values of religious literature, text, and belief always help in sustaining the society and its culture. Ramayana & Mahabharat are great epics considered as ethical literature. The Ramayana & Mahabharata explore deep morality and the core of life. In modern Indian culture, there are epic role models of morality that still have an impact on moral behavior and ethical thinking (Maity & Mete, n.d.).

Ramayana has influenced Indian society by its social and ethical principles, and the figures of Ram, Sita, Hanuman, and other characters have endured as timeless representations of morality and values.

The Bhagavad Gita, part of the Mahabharata, gives the ethical and moral education of duty, righteousness, and ethical dilemmas. In the Ramayana, the life of Ram presents the exemplar of ethical behavior. Exploration of Ramayana's teaching and discussions on the relevance of the Mahabharat foster a connection between modern life and ancient excellence (Maity & Mete, n.d.).

Purusarth: Purusharthas as values representing the Indian way of life (Ashok & Suman, 2015). Purushartha means objective of human being. Realizing the ultimate truth and spiritual values Indian ethos reflects the fourfold human objectives, i.e., Dharma, Artha, Kama, and Moksha. Dharma is supreme duty, artha indicates wealth or material, kama represents desires, and moksha is salvation or liberation (Singh, 2013). Dharma is a concept about human duty as an unseen result.

Panchadi: Panchadi is the five-step learning process that is recommended as a good way for a teacher to formulate the lesson plan for the sequence of activities and approaches that should be used to teach a child something. It recommends a teaching approach for children to experience, experiment, and explore. The 5 steps of Panchadi are Aditi, Bodh, Abhyas, Prayog, & Prasara.

Aditi: This initial phase involves the introduction of a new concept. It encourages connecting a child's existing knowledge with a new topic.

Bodh: In this stage children develop their conceptual understanding. It inspires the elimination of ignorance.

Abhyas: The third phase is practices, which emphasize the strengthening of skill theory through various engaging activities.

Prayog: It focuses on applying the learning in real-life situations.

Prasar: This stage encourages communication of acquired knowledge. It focuses on spreading the knowledge.

Strategies for integration—Teacher Training and Curriculum Development

Teacher Training— Integration of the IKS into school education is an opportunity that will help in capacity building of teachers. The education system heavily relies on well-qualified and conscientious teachers prepared by comprehensive teacher training programs. To incorporate IKS-based components and practice in the classroom, teachers must be equipped with the necessary skills, know about suitable pedagogical practices, and have knowledge of IKS concepts that can be integrated at the foundational and preparatory stages of education. Thus, professional development and comprehensive teacher training must be developed for the integration and implementation of IKS-based education.

Curriculum Development—NEP 2020 advocates for the inclusion of Indian traditional knowledge at all levels of education. The best way to inclusion is to begin with foundation and preparatory stage education. Curriculum plays a crucial role in integrating IKS into education by providing a structured and holistic view of education for students. A well-designed curriculum ensures that IKS is introduced in an age-appropriate way for the holistic development of students, value education, and the right way of learning processes. Story-based learning and play-based learning ensure the holistic development of children as value-laden citizens.

Global Recognition and Acceptance

The India Knowledge System is valuable by offering holistic perspectives on science, sustainability, well-being, and philosophy as a solution to modern global challenges. Recognizing and integrating this wisdom will help to create a more sustained world, “Vasudhaiva Kutumbakam.” Identified components for foundational and preparatory stage

education can be accepted by stakeholders of the education system. Here are some suggestions to make it possible at ground level.

- To accept the relevance of identified components, researchers could conduct research on the effectiveness of components in school education.
- Publish and spread the relevance of IKS components to integrate traditional integration wisdom with contemporary needs in education.
- By organizing interactive lectures and workshops for teachers, make efforts for recognition of Indian Traditional Knowledge.
- Digital and media outreach is an innovative way to spread cultural heritage and a treasure trove of knowledge. Massive Open Online Courses (MOOCs) and SWAYAM courses for teachers help to make them aware and motivate them to integrate at the school level.
- International collaborations by engaging global scholars in research to find out the relevance and effectiveness of IKS in modern education.
- Organize cultural events to educate people through Indian traditional theories and their uses in daily life.

Conclusion

The National Curriculum Framework for the Foundational Stage and School Education envisions the integration of the Indian Knowledge System into the education system as having the potential for the holistic development of children, value education, and traditional teaching and learning processes. Our Indian literatures are a treasure of knowledge, imagined to make children as conscious humans by developing holistic personalities, value-laden, environmentally conscious and aware, with a broadened vision of life. By keeping this view, nine components of IKS were identified, and out of nine, eight have been validated for foundational and preparatory stage teachers to integrate at foundational and preparatory stage education. These identified components have immense potential to fulfill the current need for education. However, the successful integration of identified IKS components for foundational and preparatory stage education will require comprehensive teacher training and effective curriculum development. In conclusion, we may emphasize that present education must involve both modern and traditional insight into knowledge systems.

References

- Ancient Education System of India. (2022). National Council of Educational Research and Training. <https://ncert.nic.in>
- Baral, S. (2024). Integrating Indian Knowledge Systems for Holistic Development through NEP 2020. *Global Online Electronic International Interdisciplinary Research Journal*. 13(5). [https://: www.goeirj.com](https://www.goeirj.com).
- Batra, P. (2015). Curriculum in India: Narratives, debates, and a deliberative agenda. In Curriculum studies in India: Intellectual Histories, Present Circumstances. DOI:10.1057/9781137477156-2.
- Biswas, S. (2021). Indian Knowledge system and NEP-2020 Scope, Challenges and Opportunity. *National Journal of Hindi & Sanskrit Research*. 1(39). [https://:www.Sarkariarticle.com](https://www.Sarkariarticle.com).
- Channawar, S. N.(2023). Conceptual Framework for Holistic Development: NEP 2020. *Maddhya Bhart*.82(24). Pg.22. <https://www.researchgate.net>.
- Chaudhari. M.A. & Jangid, S.K.(2024). NEP 2020 and Indian Knowledge System- an Ayurveda Perspective. <https://www.researchgate.net/publication/381574489>.
- Dave, C.J. (2018). Analysis of Ethical and Educational Perspective Depicted in ‘Hitopadesh’. 6(1). [https://:www.ijcrt.org](https://www.ijcrt.org).
- Dhavale, N. & Nimbalkar, M.(2021). A Comparative Study Of Fundamental Principles Of Ashtang Yog & Ayurved. *World Journal of Pharmaceutical Research*. 10(5). DOI:10.20959/wjpr20215-20320
- Dhulla, T.V. (2014). Transformational Leadership & Triguna Theory: A Short Literature Review. *International Journal of Advanced Research*. 2(5). <http://www.journalijar.com>.

- Kulkarni, S. (2013). Panchatantra – An Example Of Using Narratives In Teaching In Ancient Indian education. <https://www.core.ac.uk>.
- Maity, A. K., & Mete, J.(n.d.). Impact of the Mahabharata and Ramayana on Indian Knowledge Systems.Kripa Drishti Publication. <https://books.kdpublications.in>.
- Mehta, R. H. (n.d.). Asana: An Important and Integral of Yoga. [https:// esamskriti.com/](https://esamskriti.com/)
- National Education Policy. (2020). Ministry of Human Resources and Development, Government of India. <http://www.education.gov.in/>
- National Curriculum Framework for Foundational Stage.(2022). NCERT. <http://www.ncert.in>.
- National Curriculum Framework for School Education.(2023). NCERT. <http://www.ncert.in>.
- Panchal, T. P., Pandey, N.S. & Deshmukh, S.(2023). NCF for Early Child Care and Education: Challenges And Directions. *International Journal of Creative Research Thoughts*. 11(12). [https://: www.ijcrt.org](https://www.ijcrt.org).
- Rao, N. G. (n.d.). Patanjali's Ashtanga Yoga and Human Life: An Overview. [https:// esamskriti.com](https://esamskriti.com)
- Satpathy, B. (2018). Pancha Kosha Theory of Personality. *The International Journal of Indian Psychology*. 6(2). [https://:www.ijip.in/](https://www.ijip.in/)
- Sahay, G. S. (n.d.). Pantangali's Yama: In Modern Perspective. [https://: esamskriti.com/](https://esamskriti.com/)
- Sharma, B.R. (n.d.). Niyama: In Modern Perspective. [https://: esamskriti.com/](https://esamskriti.com/)
- Singh, K. et. al. (2016). Cross-cultural differences on Gunas and other well-being dimensions. *Asian Journal of Psychiatry*. <http://dx.doi.org/10.1016/j.ajp.2016.09.001>
- Singh, S. (2013). Ancient India Ethos and Mindfulness. SMS. 6(2). <https://ssrn.com/abstract=2621422>
- Suman, N. & Ashok, H.S. (2015). Relevance of Purushartha in Understanding Values and

Motivations of Professionals.SMS. 8(1). <https://www.ssrn.com/>

Tiwari, O.P. (n.d.). Pranayama. [https:// www.esamskriti.com/](https://www.esamskriti.com/)

Ubeysekara, A. (2021). An Introduction to “Jataka katha”: Previous Birth Stories of Lord

Gautama Buddha. <https://drarisworld.wordpress.com/2021/>