Revisiting Ancient Indian Knowledge System and its Application in Higher Education

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Abstract

The objective is to analyse and understand the ancient Indian knowledge system and its application in higher education. We will do a comparative analysis of Indian knowledge system in the present scenario with ancient Indian knowledge. Special emphasis will be on Vedic knowledge which will include *Upaniṣad*s also. We are undergoing through a very difficult time, where the young minds are not aware of their own philosophy, culture and values. The higher education syllabi do not provide ample scope where the students can relate themselves to their root. We have forgotten the ancient Indian knowledge which tells us how important it is to have the *Vidyā*. It is through *Vidyā* one can remove the fear of death, ignorance from our life. Indian traditions have a rich philosophical and cultural heritage. Since its inception Indian mind has given immense importance to knowledge. We have a *Śruti Paramparā* which speaks about the eternality and authoritativeness of Vedic language. We also have *Smṛti* traditions which include Bhagavadgītā, *Purāṇa*s, Epics etc provide a vast body of intellectual texts. This is to explore, how Lord Kṛṣṇa tells Arjuna that it is through the knowledge we can remove the ignorance and achieve the real self. Main objective is to connect the people with their ancient Indian knowledge system and to compare it with present higher education that's helps in creating a sustainable model in the higher education.

Full-Paper

When we talk about the ancient Indian knowledge system and its uses one thing that comes to our mind is its richness and eternality. The oral traditions of India focused on many aspects such as scientific, philosophical, religious, cultural, and linguistic. The traditions were never dogmatic. 'The oral texts, we said, are highly structured. The Indian mind is acutely taxonomic and the layered structure of the texts reflects the structured analysis of the domain of knowledge. Overt organizers such as *adhikāraṇa* and *prakaraṇa* signify the inter-relationships and the order of treatment of subjects.'[1]

Dialogue, debate, and discussions between the *purva-pakśa* and *uttar-pakśa* prove that logic and rationality were a part of the ancient Indian knowledge system. The Nyāyasutra of Akshapada Gautama is the earliest extant systematic treatise on Indian logic. The earliest word designating the science of logic is *Anavikśikī*. Kautilya, in his Arthaśastra, states that *Anavikśikī* is the science that enables people to evaluate their strengths or weaknesses.[2] Diversity in India is celebrated. Diversity is established through traditional knowledge in various fields such as art & literature, dance, drama & music, yoga, sports, agriculture, basic sciences, engineering & technology, architecture, management, economics, etc. The *Anekāntavada* (relativistic pluralism of Jaina metaphysics), Concept of *Śunyata* and *Boddhisatvahood*, *Nyāya-vaiseśika parathas*, *Sāṁkhya* Plurality of *Puruśa*s and Vedānta views on Brahman and *Māyā* relationship celebrates diversity.

Why Ancient Indian Knowledge?

The question arises why we talk so much about the ancient Indian knowledge systems. The reason is that it teaches us all-round development of personality. It is holistic, spiritual, scientific, social, and material. Concepts like *Ṛta* (cosmic law of order) and *Dharma* plays a vital role in any sustainable and developmental model. It takes care of the mental, physical, spiritual, and social development of the individual. Individual autonomy, respect, and dignity are part of the moral discourse presented through the *Śruti* tradition and carried forward by *Smṛti* traditions. The Upaniṣadic/Vedānta methods such as *śravaṇa, manana,* and *nidhidhyāsana* need to be emphasized and practiced in the higher education.

Indian philosophy is distinctive in its application of analytical rigor to metaphysical problems and goes into very precise detail about the nature of reality, the structure and function of the human psyche, and how the relationship between the two has important implications for human salvation (*mokṣa*). *Ṛśī*-centered philosophy on an assumption that there is a unitary underlying order (*Ṛta*) in the universe which is all pervasive and omniscient. The efforts by various schools were concentrated on explaining this order and the metaphysical entity as its source (*Brahman*). The concept of natural law (*Dharma*) provided the basis for understanding questions of how life on earth should be lived. The sages urged humans to discern this order and to live their lives in accordance with it.

Ours is a *śāstra paramparā*. These *śāstra*s provide us with immense knowledge about the material world (*Preyas*) as well as the spiritual world (*Śreyas*) as well.

> "… 'treatise' (*śāstra*) speaks about what is good for human beings. The special purpose of a 'treatise' is to explain the true nature of such things (*artha*) as are not known through ordinary means of knowledge, such as perception and inference. And only such students are entitled to study this 'treatise' as are endowed with the intellectual capacity to comprehend the nature of such things which they have not learnt through the ordinary means of knowledge, such as perception and inference." [3]

However, the reading of the texts is an essential condition to establish real knowledge. The ancient knowledge system allows the reader to be sceptical and critical in their approach. The major texts can be contested, questioned, revised or even rejected, but remain as signposts in the development and evolution of that civilization.[4] Indian civilization has accorded immense importance to knowledge — its amazingly vast body of intellectual texts, the world's largest collection of manuscripts, and its attested tradition of texts, thinkers, and schools in so many domains of knowledge. In Bhagavadgītā (4.33, 37-38), Lord Kṛṣṇa tells Arjuna that knowledge is the great purifier and liberator of the self. India's knowledge tradition is ancient and uninterrupted like the flow of the river Gangā, from the Vedas (*Upaniṣad*s) to Śṛī Aurobindo, knowledge has been at the centre of all inquiry.[5]

Talking about the present theme, we need to understand Higher education first. Higher education has always occupied a significant position in society and thereby the subject of speculation. In the 21st century, higher education acquired an egalitarian character. With the passage of time, higher education become increasingly vocationalised and there is an increased demand for professional education. During the COVID-19 pandemic, there is an excess demand for information and communication technology and this led to paradigm shifts in education, philosophy, and pedagogy.[6] When we talk about nation-building it is always connected with our higher education system. In the framework of national development, the role of higher education has been recognized at the global level and has been defined in the context of the requirements of the 21st century, by international organizations, committees, and commissions set up by them. In 1948, for the first time, the importance of higher education was formally recognized. This is the time the United Nations adopted the Universal Declaration on Human Rights. It ordained that education should promote understanding, tolerance, and friendship among all nations. The Declaration provided a philosophical platform for the development of higher education with Article 26 which are as follows:

> "Education shall be directed to the full development of human personality…."[7] The philosophical aspects of higher education are also highlighted in UNESCO'S report of the International Commission on Education for the 21st Century, popularly known as the Delors Report. The report proposed four pillars[8] on which education is built, namely;

a) Learning to be
b) Learning to know
c) Learning to do and
d) Learning to live together

Concerns in Higher Education

What's wrong with higher education is that we are only making strategic planning, creating rule books, and implementing them in the college and university system without creating a holistic environment. Through higher education, we are creating Scientists, Technocrats, Engineers, Doctors, etc but not 'humans'. These are the follow-ups -

a) Disinterestedness among the teachers and students
b) Quality of education is not a major concern
c) Faith, honesty, and integrity are no more there
d) Sincerity, hard work, mutual understanding, and respect are not in practice.
e) Compassion and gratitude are no more practiced inside the Institute
f) The curriculum does not provide enough space for practical learning and critical thinking
g) The curriculum does not provide space for Physical and mental stability and thereby create stress, anxiety, and unhappiness in the mind of both teachers and students.

A good educational institution is one in which every student feels welcomed and cared for, where a safe and stimulating learning environment exists, where a wide range of learning experiences are offered, and where good physical infrastructure and appropriate resources conducive to learning are available to all students. Attaining these qualities must be the goal of every educational institution. However, at the same time, there must also be seamless integration and coordination across institutions and across all stages of education. Most important is there is a good bonding between the *Gurū* and *Śiṣya*, and both of them should work in a stress-free, friendly environment. These things are missing within higher education. Loss of values, and not respect for the traditions and culture has created an emptiness. This shows there is a gap between theory and practice. Therefore, there is a need to revisit the ancient Indian knowledge system which includes mental, physical, social, scientific, and spiritual development. It's only through the ancient Indian knowledge system and its application in higher education we can create humans. The time has come now to revisit, recognize, identify, and foster the potentiality of each student, by sensitizing teachers as well as parents to promote each student's holistic development in both academic and non-academic spheres.

Ancient Indian Knowledge System

Indian tradition is a knowledge tradition and the focus is on '*Vidyā*'. It is said that '*Vidyā hi paramam Jyotih*'. Mundokapaniṣad (1.1.4-5) speaks of two kinds of knowledge which says, there are two sorts of knowledge to be acquired 'the higher, i.e, immortal knowledge' or *Parā Vidyā* and ''the lower knowledge' or *Aparā Vidyā*.

द्वेविद्ये वेदितव्ये इति ह स्म यद्ब्रह्मविदो वदन्ति परा चैवापरा च ॥ 4 ॥ तत्रापरा ऋग्वेदो यजुर्वेदः सामवेदोऽथर्ववेदः शिक्षा कल्पो व्याकरणं निरुक्तं छन्दो ज्योतिषमिति । अथ परा यया तदक्षरमधिगम्यते ॥ 5 ॥

Ancient Indian knowledge systems can be traced back to the Vedas. The Vedas are said to be '*Śruti'* they revealed knowledge which is eternal and authoritative. All the ancient Indian philosophical systems developed their epistemological theories either by accepting the Vedic authority or rejecting the Vedic authority. There are four essential components involved in the Ancient Indian knowledge system, namely; Metaphysics (*tattva vicāra*), Epistemology (*pramāna vicāra*), Ethics (*purūsārtha vicāra*), and Logic (*tarka vicāra*). When it comes to the explanation of the empirical world all these components are interrelated. All discussions on knowledge revolve around *Darśana*, *Jñāna*, and *Vidyā*. It is said that "*Darśana* (philosophy) is the 'system', the point of view, which yields/lead to *jñāna*, i.e, knowledge. When knowledge gathered about a particular domain is organized and systematized for purposes of, say, reflection and pedagogy, it is called *Vidyā*, i.e., 'discipline'.[9] Indian philosophers showed genuine interest in the analysis of knowledge and argument, in the criteria of knowledge that reveals reality, in the levels of logic and dialectics, in the search for sound philosophical arguments, and so on. The literature on these issues is very rich and varied.[10] Almost all schools of Indian philosophy regarded *darśana* as imparting knowledge of the way by which one can change the existing life experience[11] and can create a state of infinity and bliss.

The ancient knowledge system was never dogmatic, it was based on experiential learning. Miṁāmsā-Vedanta, Nyāya-Vaiśesika, and Sāṁkhya-Yoga are the main systems of Indian philosophy that seem to give importance to the quality theory of knowledge. Gautam refers to knowledge through the term '*Buddhi*' and states that the terms 'Upalabdhi', '*Buddhi*, and *Jñāna* are synonymous terms. Like other *Nayāyika*s, Jayanta is of the view that knowledge is the quality that belongs to the self. *Buddhi* is knowledge not an instrument of knowledge. Indian philosophical systems have divergent views regarding knowledge. Whereas Nyāya holds that knowledge is the product of the mind with the self thereby giving a realistic explanation of the theory of knowledge, the *Advaita* theory of knowledge is based on eternal pure consciousness- '*sākśāt pratītih pratyakṣaṁ*'. Vātsyayaṇa said like Nyāya *Darśana* other *darśana*s as well speak of a fourfold classification of disciplines that forms the subject matter of study, namely,

a) Knowledge of the Vedic scriptures,
b) Knowledge of Agriculture and Commerce
c) Knowledge of Politics and law
d) Knowledge of Philosophy *Anavikśikī*) [12]

Vātsyayaṇa comments that each discipline has its own distinct method or *Prasthāna* and this distinct method of the fourth one, *Anavikśikī*, or philosophy, is illustrated by its special examination of the sixteen categories which includes means of knowledge (*pramāṇas)* objects of knowledge (*prameya*), validity or invalidity of arguments *(pramā jñāna*) and determination of truth (*pramitir*) and so on.[13] The method of questioning is a part of *Darśanika Paramparā*. This is clearly brought out by Kenopaniṣad.

Method of 'questioning' are part of the ancient Indian knowledge system

In Kenopaniṣad, to know the reality, the student asks the question to the teacher- 'By whom willed and directed does the mind light on its subjects? By whom commanded does *prāṇa*, the first, move? By whose will do men speak this speech? What Intelligence directs the eye and the ear?'

'केनेषितं पतति प्रेषितं मनः केन प्राणः प्रथमः प्रैति युक्तः ।
केनेषितां वाचमिमां वदन्ति चक्षुः श्रोत्रं क उ देवो युनक्ति ॥ 1॥

The answer given by the Gurū is as follows- 'It is the Ear of the ear, the Mind of the mind, the Speech of speech, the life of life, and the Eye of the eye. Having detached the Self from the sense-organs and renounced the world, the wise attain to immortality'.[14] The eye does not go thither, nor speech, nor the mind. We do not know it; we do not understand how anyone can teach It. It is different from the known; It is above the unknown. Thus, we have heard from the preceptors of old who taught It to us.[15]

श्रोत्रस्य श्रोत्रं मनसो मनो यद्वाचो ह वाचं स उ प्राणस्य प्राणश्चक्षुषश्चक्षुः.....
न तत्र चक्षुर्गच्छति न वाग्गच्छति नो मनो न विद्मो न विजानीमो ॥ 2-3॥

Without the knowledge of the knower, when the knower is in ignorance (*Avidyā*) about himself, the whole structure of knowledge is as if baseless. Thus, the method of questioning is an important contribution of the ancient Indian knowledge system to the whole world. This method of questioning was a part of the *Śruti* as well as carried forward by *Smṛti* texts, such as Bhagavadgītā (Arjuna asks questions to Kṛṣṇa), Mahābhārata (Yakṣa's *praśna* to Yudhiṣṭira), etc. However, this type of questioning is no more in practice among students of the 21st century. Various factors are responsible for the creation of disinterestedness among the students as well as teachers. The mobile culture has changed the traditional set of learning. The present education system has created a consumeristic culture and developed mechanical lives.

Debate, Dialogue, and Discussions are part of the Ancient Indian Knowledge system

The second essential element is that dialogue, debate, and discussion are part of the ancient Indian knowledge system. Since its inception, there are very lively and extensively practiced traditions of formal debates in ancient India. These debates were conducted, sometimes with royal patronage, to examine various religious, philosophical, moral, and doctrinal issues.[16] The corpus of knowledge on conducting a successful debate was referred to as *vādavidyā* and several manuals dealing with this discipline had been produced. It was from these debates that the Indian tradition of logic and allied investigations evolved and developed. For example, Bṛhadāraṇyaka Upaniṣad, has references to King Janaka as not only organizing and patronizing debates between the sages and priests but also as participating in such debates. Women also used to participate in these debates. Gārgī was a woman *ṛṣikā* who used to participate in the debates in King Janaka's court.[17]

The *śāstrārtha* between Yama and Nachiketā, Aṣṭavakra and Bandi, Śvetaketu and Uddālaka, Yajñyvalkya and Gārgī, and Mandan Mishra and Sankarācharya are highly significant. Such as, Gārgī said: "O Yajñyvalkya, I shall ask you two straightforward questions. Answer me these". Yajñyvalkya agreed. Gārgī said: "O Yajñyvalkya, what pervades that *Sutra* which is above heaven and below the earth, which is heaven and earth as well as what is between them and which—they say—was, is and will be?" Yajñyvalkya said: "That, O Gārgī, which is above heaven and below the earth, which is heaven and earth as well as what is between them and which—they say—was, is and will be, is pervaded by the unmanifested *Ākāśa*".

Multi-disciplinarity is a part of the Ancient Indian Knowledge system

In Indian knowledge-centered tradition mentions 18 major *vidyā*s or theoretical disciplines; and 64 *kalā*s, applied or vocational disciplines, and crafts. The 18 *vidyā*s are as follows: The four Vedas, The four subsidiary Vedas (*Āyurveda*-Medicine, *Dhanurveda*-Weaponry, *Gandharvaveda*-Music, and *Śilpa*-Architecture), *Purāṇa*, *Nyāya Miṁāmsā*, *Dharmaśāstra*, and Vedāngas, Six auxiliary sciences, phonetics, grammar, metre, astronomy, ritual, and philology. These formed the basis of the 18 sciences in ancient India. As far as the applied sciences are concerned, there are competing enumerations of 64.[18]

Science and religion are never tuned with each other. Rather they work together. Progress in science has never been a hindrance to spiritual growth in ancient India. The disciplines like Astronomy, Mathematics, Chemistry, Physics, and Medicine flourish together in India. Rules and disciplines are followed and clearly mentioned in the Vedic texts as well as in Charak Saṁhitā. Āryabhaṭṭa wrote Physics, mathematics, and astronomy. Advances in science and technology are the main reason for the growth of human civilization. India has been contributing to the field of science and technology since ancient times. Even today what we call 'traditional knowledge' is actually based on scientific reasoning. Indians developed advanced mathematics, including the concept of zero, the base-ten decimal system now in use worldwide, and many important trigonometry's and algebra formulae. They made several astronomical discoveries. Diverse schools of logic and philosophy proliferated. India's Panini is acknowledged as the founder of linguistics, and his Sanskrit grammar is still the most complete and sophisticated of any language in the world.

Open-mindedness

A broad outlook that reflects its unflinching devotion to truth distinguishes Indian philosophy. Each school is open to the views of all other schools. There was nothing like this as the best system or the only way to self-realization. The established system of philosophical exposition in the Indian tradition involves explaining and criticizing the prior view of the subject, then refuting the view and describing a subsequent view that takes you to a higher level or final theory. Because of a continuous exchange of ideas, the philosophical systems have with time, become more sophisticated and complete.

The Ancient knowledge system focused on:

a) Knowledge of the text

b) Participatory research/ interactive learning
c) Open-mindedness
d) Autonomy, human dignity, and respect
e) We have to make a distinction between *Jñāna* and Knowledge
f) The focus is on holistic education which means an individual's mental, physical, social, material, emotional and spiritual development
g) The emphasis is on experiential learning through the Indian value system by adding virtue, empathy, compassion, collective learning, character building etc.
h) Bridge the gap between theory and practice and more emphasis on the practical component
i) Cherish the idea of *bahujana hitāya, bahujana sukhāya*
j) To cherish the idea of *vasudhaiva kuṭumbakaṁ*

The main objective of ancient Indian knowledge was to create a society where all living beings lived together in a harmonious way, leading healthy and wealthy life. The time has come to revisit the higher education system and applied traditional pedagogy in order to create a healthy atmosphere where we can create interest among the teachers and students. The New Education Policy 2020 has acknowledged the importance of the ancient Indian knowledge system and its application in higher education. NEP 2020 defined the ancient Indian knowledge system as, 'The rich heritage of ancient and eternal Indian knowledge and thought has been a guiding light for this Policy. The pursuit of knowledge (*Jñāna*), wisdom (*Pragyā*), and truth (*Satya*) was always considered in Indian thought and philosophy as the highest human goal. 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. World-class institutions of ancient India such as Takśashilā, Nālandā,Vikramśilā, Vallabhi, set the highest standards of multidisciplinary teaching and research and hosted scholars and students from across backgrounds and countries. The Indian education system produced great scholars such as Charaka, Suśruta, Āryabhaṭa, Varahāmihīra, Bhaskarācharya, Brahmagupta, Chāṇakya, Chakrapāṇi Datta, Mādhava, Pāṇini, Patanjali, Nāgarjuna, Gautama, Pingala, Śankardev, Maitreyī, Gārgī and Thiruvalluvar, among numerous others, who made seminal contributions to world knowledge in diverse fields such as mathematics, astronomy, metallurgy, medical science and surgery, civil engineering, architecture, shipbuilding and navigation, yoga, fine arts, chess, and more. Indian culture and philosophy have had a strong influence on the world. These rich legacies to world heritage must not only be nurtured and preserved for posterity but also researched, enhanced, and put to new uses through our education system.[19]

The teacher must be at the centre of the fundamental reforms in the education system. The new education policy must help re-establish teachers, at all levels, as the most respected and essential members of our society, because they truly shape our next generation of citizens. It must do everything to empower teachers and help them to do their job as effectively as possible. The new education policy must help recruit the very best and brightest to enter the teaching profession at all levels, by ensuring livelihood, respect, dignity, and autonomy, while also instilling in the system basic methods of quality control and accountability. The sole idea of higher education should not aim at creating graduate students and professionals. Rather create a holistic environment, and make them human and self-sufficient. The essence of higher education would be actually justified only when we are accountable to our ancient knowledge system and apply them in the present system and built a secure future.

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