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# Ancient Indian Knowledge System And Its Application In Higher Education

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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 Spiritual, 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 *adhikaraṇa* and *prakaraṇa* signify the inter-relationships and the order of treatment of subjects." [1]

Dialogue, debate, and discussions between the Purva paksha and Uttar paksha prove that logic and rationality were a part of the Ancient Indian Knowledge system. The *Nyāyasūtra* of Akshapāda Gautama is the earliest extant systematic treatise on Indian logic. The earliest word designating the science of logic is Ānavikṣiki. Kautilya, in his *Arthāsastra*, states that Ānavikṣiki is the science that enables people to evaluate their strengths or weaknesses…. Ānavikṣiki was held in great esteem by those who accepted the importance of reasoning for the ascertainment of truth. For instance, Gautama's Dharmasūtra, maintains that the kings must go through a course of training in Ānavikṣiki. … Nyāya has been enumerated by Yajñavalkya amongst the fourteen principal sciences and Maharshi Vyāsa clearly states that he has taken great help from Ānavikṣiki in the arrangement of the Upanishads. [2] Diversity in India is celebrated. Diversity is established through traditional knowledge in various fields such as 'Art and literature, Dance, drama and music, Yoga, Sports, Agriculture, Basic Sciences, Engineering and Technology, Architecture, Management, Economics, etc. The Anekāntavada (relativistic pluralism of Jaina metaphysics), Concept of Sunyata and Boddhisatvahood, Nyāa-vaiseshika padarthas, Sāmkhya Plurality of Purusas and Vedanta views on Brahman and Maya relationship celebrates diversity.

Why Ancient Indian Knowledge?

The question arises as to 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 Rta (cosmic law of order) and Dharma play a vital role in any sustainable and developmental model. It takes care of the mental, physical, spiritual, and social development of the individual.

Uttisthta samnahyadhvam

Mitra devajana yuvam// (AV11.9.2)

O learned friends! All of you arise and get ready (for your upliftment)!

Udyanam te purusa navayanam I(AV 8.1.6)

Let upward going be for you, not sliding downward, O human being![3]

Individual autonomy, respect, and dignity are part of the moral discourse presented through the Shruti tradition and carried forward by Smriti traditions. The Upanishdic/Vedanta methods such as Sravana, Manana, and Nidhidhyasana need to be emphasized and practiced in 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 (moksha). Rishi-centered philosophy on the assumption that there is a unitary underlying order (*rta*) 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 following it.

Ours is a Shastra Parampara. These shastras provide us with immense knowledge about the material world (Preyas) as well as the spiritual world (Shreyas).

"… 'treatise' (shastra) 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 learned through the ordinary means of knowledge, such as perception and inference." [4]

However, the reading of the texts is an essential condition to establish real knowledge. The Ancient knowledge system allows the reader to be skeptical 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.' [5]

'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 Srimad Bhagavad Gitā, 4.33,37-38, Lord Krishna 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 Ganga, from the Vedas (Upanishads) to Sri Aurobindo, knowledge has been at the centre of all inquiry.'[6]

When we are talking about 'Revisiting the Ancient Indian Knowledge system and its application in Higher Education', 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 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. This led to paradigm shifts in education, philosophy, and pedagogy.[7]

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 was 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…."[8] 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 [9] on which education is built, namely;

Learning to be

Learning to know

Learning to do and

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

- Disinterestedness among the teachers and students
- Quality of education is not a major concern
- Faith, honesty, and integrity are no more there
- Sincerity, hard work, mutual understanding, and respect are not in practice.
- Compassion and gratitude are no longer practiced inside the Institute
- The curriculum does not provide enough space for practical learning and critical thinking
- The curriculum does not provide space for Physical and mental stability and thereby creates stress, anxiety, and unhappiness in the minds 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.'[10] However, at the same time, there must also be seamless integration and coordination across institutions and all stages of education.

Most important is there is a good bond between the Guru and Sishya, 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

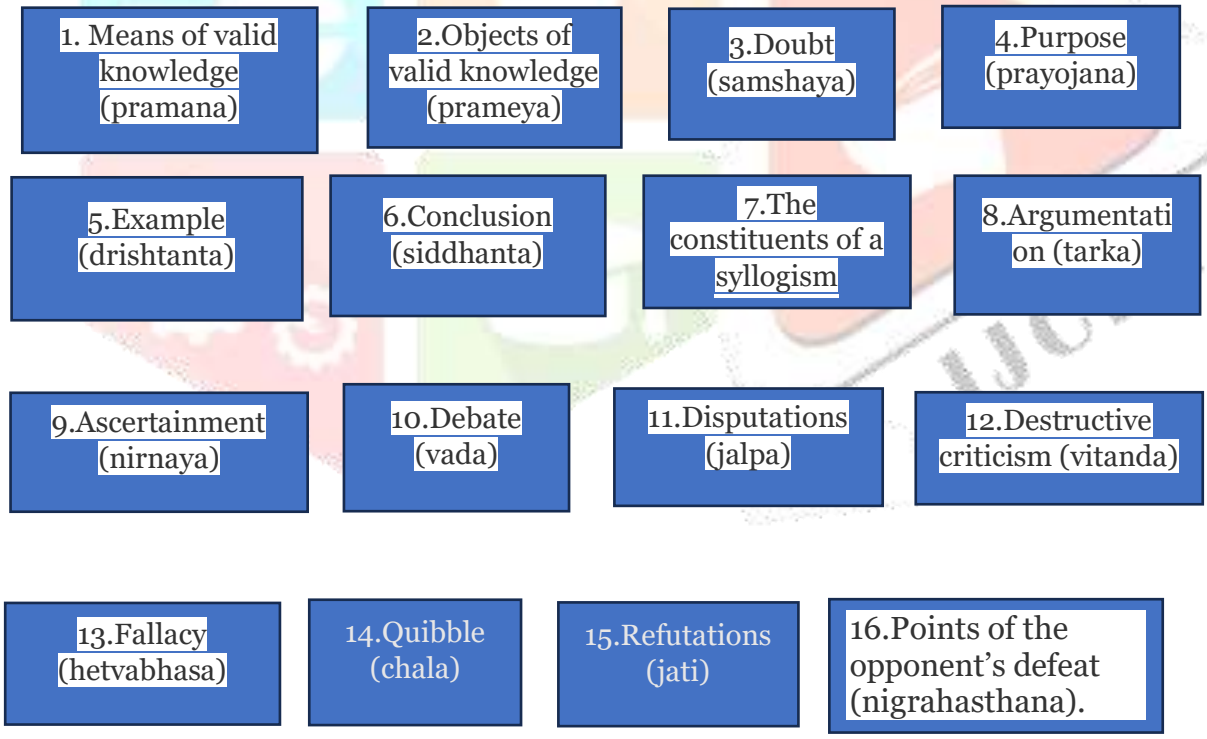
Indian tradition is a knowledge tradition and the focus is on "vidya". It is said "Vidyā hi paramam Jyotih". Mundokapanishad speaks of two kinds of knowledge (Mundakopanishad, 1.1.4) which says:

> द्वे विद्ये वेदितव्ये इति ह स्म यद्ब्रह्मविदो वदन्ति परा चैवापरा च |
> तत्रापरा ऋग्वेदो यजुर्वेदः सामवेदोऽथर्ववेदः शिक्षा कल्पो व्याकरणं
> निरुक्तं छन्दो ज्योतिषमिति |अथ परा यया तदक्षरमधिगम्यते ||
>
> There were two different kinds of knowledge to be acquired 'the higher knowledge' or Para Vidya (परा विद्या ) and 'the lower knowledge' or Apara Vidya.

Ancient Indian knowledge systems can be traced back to the Vedas. Veda is derived from the root word "vid" which means "to know" and Vedas stands for knowledge. The Vedas are said to be "Shruti" the revealed text 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 (pramāṇa vicāra), Ethics (purusārtha 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 Darshana, Jnana, and Vidya. It is said that "Darshana (philosophy) is the "system," the point of view, which yields/leads to jnana, knowledge. When knowledge gathered about a particular domain is organized and systematized for purposes of, say, reflection and pedagogy, it is called vidya, "discipline."[11]

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.[12] In the *Nyāya-Sūtra* of Gotoma, we find a description of sixteen logical and epistemological categories which are as follows:




**SIXTEEN CATEGORIES OF NYAYA-VAISHESIKA PHILOSOPHY**

Nyaya school is primarily known for its logic which includes the art of argumentation and debating skills. Like Aristotelian logic, Nyaya has developed five-membered syllogism. To constitute a valid syllogism Middle term (hetu) plays a major role. Vyapti is the nerve of the inference. Vyapti is defined as the invariable concomitance between the major term and the middle term. The logic of the Nyaya system provides various epistemological categories such as error, doubt, tarka, vitanda, chala, jalpa and so on. for healthier debate, dialogue, and discussions.

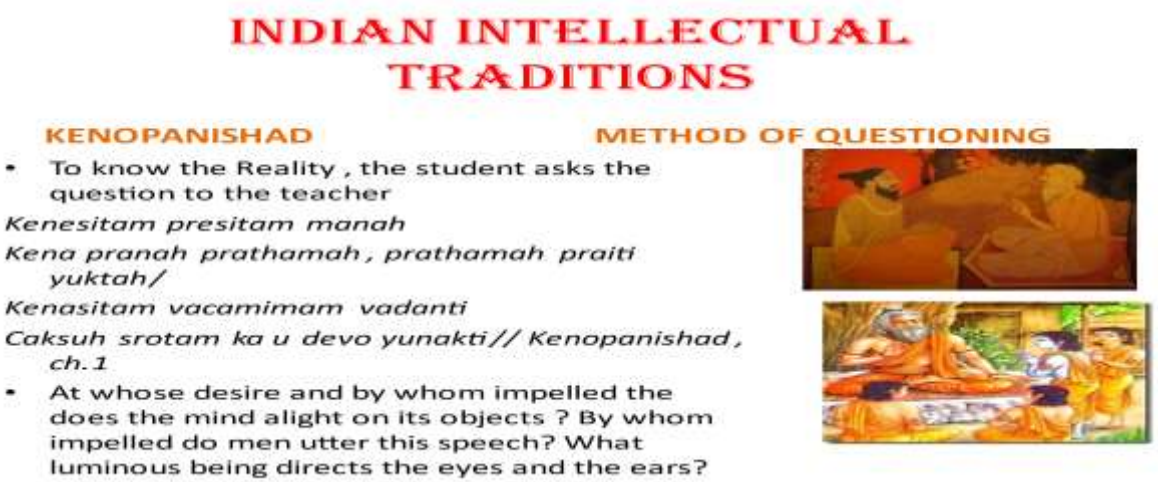
Almost all schools of Indian philosophy regarded *Darshana* as imparting knowledge of the way by which one can change the existing life experience[13] and create a state of infinity and bliss.

The Ancient knowledge system was never dogmatic, it was based on experiential learning. *Mimaṁshā-Vedānta*, *Nyāya-Vaishesika*, 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 jnana are synonymous terms. Like other Nayāyikas, 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 Nyaya 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. (*Sakshāt pratitih pratyaksham*). Vatsyayana said like Nyaya Darshana other darshanas as well speak of a fourfold classification of disciplines that forms the subject matter of study, namely,

- Knowledge of the Vedic scriptures,
- Knowledge of Agriculture and Commerce
- Knowledge of Politics and law
- Knowledge of Philosophy Anavikshiki) [14]

Vatsyayana comments that each discipline has its distinct method or *Prasthana* and this distinct method of the fourth one, Anavikshiki, or philosophy, is illustrated by its special examination of the sixteen categories which includes means of knowledge (*pramanas)* objects of knowledge (*prameya*), validity or invalidity of arguments *(prama jnana*) and determination of truth (Pramitir) and so on.[15]

The method of questioning is a part of Darshnika Parampara. This is clearly brought out by Kena Upanishads Method of Questioning is part of the Ancient Indian knowledge system



The guru said:c

*Srotasys Shrotram manas mano yad vaco ha vacam sa u pranasya pranah/*

*Caksusas caksur ati muchya dhirah pretyasamallokadamrta bhavanti//Kenopanishad,2.*

"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."[16]

The answer given by the Guru is as follows:

*Na tatra caksur gaachati no manah/*

*Na vidyam na vijnanimo yathaitadanysisyat// Kenopanishad,3*

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. (1.3-4)[17]

Without the knowledge of the knower, when the knower is in ignorance (avidya) about himself, the whole structure of knowledge is 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 Shruti text as well as carried forward by Smriti texts, such as *Bhagavadgitā (*Arjuna asks questions to Krishna), Mahābhārata (yaksha's prashna to Yudhistira), etc. However, this type of questioning is no longer practiced among students in 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 have been 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. [18] 'The corpus of knowledge on conducting a successful debate was referred to as vādavidyā and several manuals dealing with this discipline had been produced.' [19]It was from these debates that the Indian tradition of logic and allied investigations evolved and developed. For example, Brhadaranyaka Upanishad 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. Gargi was a woman scholar who used to participate in the debates in King Janaka's court.'[20]

The shastrartha between Yama and Nachiketa, Astavakra and Bandi, Shvetaketu and Uddalaka, Yajnyvalkya and Gargi, and Mandan Mishra and Samkaracharya are highly significant.

Gargi asked two questions to Yajnavalkya. Yajnavalkya agreed to answer these two.

'Gargi asked: "O Yajnavalkya, 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?"

Yajnavalkya said: "That, O Gargi, 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 akasa.'[21]

Multidisciplinarity is a part of the Ancient Indian Knowledge system

In Indian Knowledge-centred tradition mentions 18 major vidyas or theoretical disciplines; and 64kalas, applied or vocational disciplines, and crafts. The 18 vidyas are as follows:

- The four Vedas
- The four subsidiary Vedas (Ayurveda-Medicine, Dhanurveda-weaponry, Gandharvaveda-Music, and Shilpa-Architecture).
- Purana, Nyaya Mimamsha, Dharmashastra, and Vedangas, Six auxiliary sciences, phonetics, grammar, metre, astronomy, ritual, and philology

These constituted the basis of the 18 sciences in Ancient India. As far as the applied sciences are concerned, there are competing enumerations of 64.[22]

Science and religion are never in tune 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 mentioned in the Vedic texts as well as in Charak Samhita. Aryabhatta wrote Physics, mathematics, and astronomy.

The growth of human civilization is based on the advancement of science and technology. India has been contributing to the field of science and technology since ancient times. Even today what we call "traditional knowledge" is based on scientific analysis.

Indians developed advanced mathematics, including the concept of zero, the base-ten decimal system now in use worldwide, and many important trigonometry 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.'[23]

*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.'[24] The richness of the Indian philosophical systems is based on the exchange of their ideas. Acceptance, assimilation, and recognition are very much part of the Indian knowledge system. The system works through the principle of identity in and through differences. There was nothing like this as the best system or the only way to self-realization. There is continuity and change taking time and social problems into account. Through the exchange of ideas, the darshanika system become more sophisticated and complete.

The Ancient knowledge system focused on:

Knowledge of the text

Participatory research/ Interactive learning

Open-mindedness

Autonomy, Human dignity, and respect

We have to make a distinction between Jnana and Knowledge

The focus is on holistic education which means an individual's mental, physical, social, material, emotional, and spiritual development

The emphasis is on experiential learning through the Indian Value system by adding Virtue, empathy, compassion, collective learning, character building, etc

Bridge the gap between theory and practice and more emphasis on the practical component

Cherish the idea of *Bahujana hitaya, vahujana sukhaya*

To cherish the idea of *vasudhaiva kutumbakam*

The main objective of ancient Indian knowledge was to create a society where all living beings lived together harmoniously, leading healthy and wealthy lives. The time has come to revisit the higher education system and apply traditional pedagogy 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 (Jnana), wisdom (Pragyaa), 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 Takshashila, Nalanda,Vikramshila, 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, Susruta, Aryabhata, Varahamihira, Bhaskaracharya, Brahmagupta, Chanakya, Chakrapani Datta, Madhava, Panini, Patanjali, Nagarjuna, Gautama, Pingala, Sankardev, Maitreyi, Gargi 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. "[25]

"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 jobs 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."[26]

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 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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[1] . Kapoor Kapil and Singh Avadhesh Kumar (editors), Indian Knowledge Systems- Nature, Philosophy and Character, Vol I, https://www.lkouniv.ac.in/site/writereaddata/siteContent/202004120632194475nishi_Indian_Knowledge_Systems.pdf, D. K.Print world, Pvt. Ltd. P. 13.

[2]. Bijalwan C.D,(1977). Indian Theory of Knowledge (based on Jayanta's Nyayamanjari, Heritage Publishers, New Delhi, pp.2-3.

[3] . Kumar Shashiprabha, (2016). Drops of Vedic Nectar, D.K.Printworld(P) Ltd. And also by Rashtriya Sanskkrit Sansthan, New Delhi, pp. 73-74, pp.77-78.

[4] . Thakur A, ( edited) (1966), (1916). Uddyotakara, *Nyaya-vartika*, opening paragraphs, Chowkhamba, Varanasi, *Philosophy, Culture, and Religion, Mind, Language and world, "On the Concept of Philosophy of India", p. 362.*

[5] . Makarand Paranjape and Santosh K. Shareen (edited), Shabda (Text and Interpretation in Indian Thought, Mantra Books , p. 12.

[6] Singh Brig. A.P. , Ancient Indian Knowledge Systems and their Relevance Today – With an Emphasis on Arthaśāstra, https://indiafoundation.in/articles-and-commentaries/ancient-indian-knowledge-systems-and-their-relevance-today-with-an-emphasis-on-arthasastra/

[7] .K.B. Powar, Indian Higher Education Revisited, Vikash Publishing House PVT LTD., p.5.

[8] Ibid., p.6.

[9] Ibid., p.6.

[10] . https://www.aicte-india.org/sites/default/files/nep2020.pdf

[11] Kumar Raj,2016. Characteristics of Ancient Indian Educational System, https://vedicwaves.wordpress.com/2016/09/

[12] Jonardon Ganeri (ed) 2002. *Philosophy, Culture and Religion, Mind, Language and world, "Indian Philosophy: Is there a Problem Today"?,* Oxford University Press, p.352.

[13] . Jonardon Ganeri (ed) 2002. *Philosophy, Culture and Religion, Mind, Language and world, The Perception of the Self in the Indian Tradition",* Oxford University Press,p.303.

[14] Ibid., p.353.

[15] Vatsyayana on Nyayasutra 1.1.1.

[16] Sarvananda Swami, KENOAPANISHADAS, Sri Ramakrishnan Math, Madras, p5.

[17] Ibid., PP. 6-7.

[18] . Bimal Krishna Matilal; Jonardon Ganeri; Heeraman Tiwari (1998). The Character of Logic in India (PDF). SUNY Press. p. 2. ISBN 9780791437407. Retrieved 27 November 2016.

[19] . https://www.wikiwand.com/en/Debates_in_ancient_India

[20] . *Bimal Krishna Matilal; Jonardon Ganeri; Heeraman Tiwari (1998). The Character of Logic in India. SUNY Press. p. 31. ISBN 9780791437407.* https://dbpedia.org/page/Debates_in_ancient_India.

[21] https://maharajnisargadatta.com/dialog_between_gargi_yajnavalkya.php

[22] . Indian Knowledge Systems Vol 1 https://iks.iitgn.ac.in/wp-content/uploads/2016/01/Indian-Knowledge-Systems-Kapil-Kapoor.pdf

[23] https://www.sanskritimagazine.com/traditional-knowledge-systems-of-india/

[24] https://www.esamskriti.com/e/Spirituality/Philosophy/Characteristics-of-Indian-philosophy-1.aspx/

[25] National Education Policy 2020, Ministry of Human Resource Development, Government of India, p 4.

[26] https://ncert.nic.in/pdf/nep//NEP_2020.pdf.