Chapter – 2

LITERARY RESEARCH

2.0 CONCEPT OF BUDDHI^H AND ITS EFFECTS FROM ANCIENT INDIAN TEXTS:

This has been presented in two parts. The first part is to cull out the literature from traditional texts on *Mantras* that have been used as an important component of the intervention in this study. The second part deals with the relevant scientific literature as a background for the work done.

Since the experimental study is about improving cognitive abilities and executive function in primary and high school children, we relate these to conceptual idea called *"Buddhiḥ"* reference to which is found in our ancient Indian texts. This gives a larger perspective of *Buddhiḥ* in evolution of our consciousness that encompasses not just cognition but perception and intellect as well. This literary research is intended to discern the conceptual basis of yoga in improving human intellect and cognitive functions.

2.1 BACKGROUND AND SCOPE:

In this experimental study we are evaluating the effects of yoga vs physical activity interventions on performance measures in school children. This study attempts to evaluate performance measures physical and cognitive in children. In consonance to this literature review we propose to study the concept of *Buddhilı* according to ancient Indian texts and correlate *Buddhilı* to various aspects of cognition, such as attention span, memory, working memory, mental speed, verbal/visuospatial memory etc that impacts learning in children.

2.1.1 Etymology:

According to *Bhāratiyaśastras, Buddhi*! (*Mahat*) is considered as one of the basic and fundamental elements of creation. It is said that the *Buddhi*! is the most primitive and subtle component of the creation which can give rise to the manifestation of many other

things. (*Sānkhya Darśana*). *Buddhi*<u>h</u> (Sanskrit: "intellect; the faculty of discrimination"), is a feminine Sanskrit noun from the root "*budh*" = to be awake; to understand; to know; comprehend) - the determinative faculty of the *Manas* (mind) that makes decisions; sometimes translated as *Buddhi*<u>h</u> intellect." Another translation is the higher *Manas*, or wisdom.

2.2 AIMS AND OBJECTIVES:

- To understand and study the concept of *Buddhili* based on ancient Indian traditional literature and relate to learning and cognitive development in children.
- To study utility of enhancing *Buddhili* for health and educational growth in children through yoga practices.

2.3 MATERIALS AND METHODS:

We have compiled authentic information on *Buddhili* to use the faculties effectively in yoga practices as in classical yoga and spiritual literature to implement the concepts of *Buddhili and* its effects in performance measures for health and learning skills such as attention, concentration, focus, and memory among children. A literary research has been done on *Vedas*, *Upaniṣads and Patañjali yoga Sūtras*, *Bhagavadgīta* etc.

Humans are unique and naturally gifted creatures who specially possess *Buddhi*¹/₁/collective intellect, intuition compared to animals. Children as they grow develop cognitive capabilities, the capacities to reason, to plan, to solve problems, to think abstractly, to comprehend ideas, to use language, understand and learn them with enthusiasm. *Buddhi*¹/₁ - is one such discriminative intellect, an instrument that is activated in contact with the organs of perception and cognition and takes different forms with different states of awareness, and by observing the activities of the personality.

This literally means "to wake, be awake, observe, heed, attend, learn, become aware of, to know, and be conscious again". The term appears extensively and other Vedic

literature. *Buddhi*^h means, the power to "form, retain concepts; intelligence, reason, intellect, mind", the intellectual faculty and the ability to "discern, judge, comprehend, understand" something. The same root is the basis for the more familiar masculine form Buddha and the abstract noun Bodhi (Monier-Williams; & Leumann; 2002).

Intelligence can be summation of the cognitive perception and its utilization whereas *Buddhili* is cognitive but it is beyond mundane cognition and reaches up to the spiritual realization. So *Buddhili* is a higher order faculty in the *Vijñānamaya kośa* where in cognition and perception are part of this entirety.

Taitarīya Upanishad: says knowledge (wisdom) itself is the Brāhmaņ.

According to tantric scriptures: *Buddhili* is a place where radiance of <u>*Ātma*</u> is reflected.

Buddhili influences the way one understands and interprets one's experiences, take actions and decision, develop beliefs and prejudices, regulate our lives, behaviour, relationships, learning, speech, expression and so on.

Buddhili Hina: means absence of or deficiency of *Buddhili*. According to Hindu scriptures, most of our problems in life can be traced to the deficiencies in our *Buddhili*. *Buddhili* has a tendency to become clouded by the activity of the senses and our desire for sense objects.

Buddhi[†]*i*</sup> is used as a tool for deepening experience in meditation. There are three parts in our cerebrum. The outer layer is called *Manas* or *manas*. The *Pañcendriyas* or five sense organs, feed the *manas* with sensations of the external world. The middle portion of the cerebrum is called will or *Buddhi*[†]*i*. The *Karmendriyās* or limbs make an impact on it. The innermost core is called intellect or *cittā*. In meditation along with *Karmendriyās* and *Pañcendriyas* the *manas* too is absorbed in the contemplation of god.

Buddhili makes its first scriptural appearance in the *kathopanisad* (I, 3), where it is compared in a famous simile to the driver of a horse and carriage. The reins held by the driver represent the lower *Manas* (*manas*), the horses represent the five senses (*Indriyās*), and the carriage represents the body.

The principle of *Buddhil*₁ is one of the most important principles and tools of Yoga, as presented in the *Yoga sūtras*.

"*Yog*" is a Sanskrit word derived from the root '*yuj*' that means to join Individual consciousness- *Ātman* or self with infinite, pure, Supreme Consciousness- *Paramātman*.

Yoga and spirituality trace the deficiency in *Buddhili*, educate them to overcome the weakness of the *Manas* and solve problems in their life and enable them to use the faculties of the *manas* effectively for self-realization.

Patañjali Yoga Sūtras.: accept the *Sānkhyās* division of the world and phenomena into twenty-five *Tattvas* or principles, of which one is *Puruṣa* meaning Self or consciousness, the others being *Prakrti* (primal nature), *Buddhiḥ* (intellect or will), *Ahaṅkāra* (ego), *Manaḥ* (*Manas*), five *Buddhiḥ Indriyās/Jñānendriyās* (sensory capabilities) five *Karmendriyās* (action capabilities) and ten elements. The second part of the *Sūtras*, the *Sādhana*, also summarizes the *Sānkhya* perspectives about all seen activity lying within the realm of the *Tringuṇa* of *Sattva* (illumination), *Rajas* (passion) and *Tamas* (lethargy).

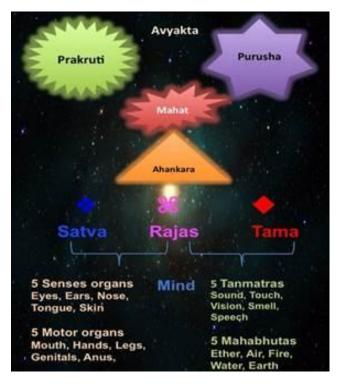


Figure-1 (Adapted from Samkhya Kartika, web site: ayurvedaamritavani.com)

Buddhih modulated by Guna :

Nature is the ultimate component of 3 basic qualities, *Guan-s-Sattva* (essence), *Rajas* (energy) and *Tamasi* (inertia). These *Trīguņas* are eternally present in nature in equilibrium state. When the equilibrium of these is disturbed under the influence of purusha the process of creation begins and ultimately manifest into *Buddhilı, Alıankarā* and *Manalı*, life & five eternal basic substances.

According to *Sānkhya* philosophy: *Buddhiļı, Aḥankarā* and *Manaḥ*, constitute the psychic part of living personality. They are also called 3 internal organs.

The *Buddhih* (Intellect)-The intellect evolves out of nature when the equilibrium state is disturbed by influence of self. It is the basis of intelligence of an individual. Intellect is the alone receptor of all subconscious impression. Miseries are due to desires, Salvation, ensures with the elimination of desires. (*Bhagavad Gita* chapter 4 verse38).

A person whose intellect, patience and memory are impaired, subjects himself to intellectual blasphemy by virtue of his bad action $B_{ll}ddhil_l N\bar{a}sal_l$. This intellectual blasphemy aggravates all the Dosas or causation of various ailments. (Provide the 'seed' of stress).

Buddhiḥ Yogā[:]

सुखदुःखे समे कृत्वा लाभालाभौ जयाजयौ। ततो युद्धाय युज्यस्व नैवं पापमवाप्स्यसि ॥ २⁻३८ ॥ sukha-duḥkhe same kṛitvā lābhālābhau jayājayau tato yuddhāya yujyasva naivaṁ pāpam avāpsyasi

एषा तेऽभिहिता साङ्ख्ये बुद्धियोंगे त्विमां शृणु।

बुद्धचा युक्तो यया पार्थ कर्मबन्धं प्रहास्यसि ॥ २-३९ ॥

eșhā te 'bhihitā sānkhye buddhir yoge tvimām śhṛiṇu buddhyā yukto yayā pārthakarma-bandham prahāsyasi

Also known as "Yoga of Consciousness" teaches us how to overcome the weakness of the Manas and achieve the state of equanimity so that one can remain alike in pleasure and pain, gain and loss, victory and defeat (2.38).

Aim of Buddhiḥ Yogā - is Remaining free from the bondage of all actions, disinterested action through 'Vyavasāya-Ātmikā Buddhiḥ' i.e. cultivated Manas (2.39). (Bhagavad Gita chapter 2verse 44).

आत्मानं रथितं विद्धि शरीरं रथमेव तु।

बुद्धिं तु सारथिं विद्धि मनः प्रग्रहमेव च ॥ क उ १-३-३ ॥

ātmānani rathitan viddhi śarīran rathameva tu |

Buddhini tu sārathini viddhi manaļ pragrahameva ca // ka u 1-3-3//

"The soul within the chariot is the rider; the body is the chariot. The charioteer is the intellect or reason. The mind is like reigns with which the horses are connected to the chariot."

इन्द्रियेभ्यः परा हार्था अर्थेभ्यश्च परं मनः।

मनसस्तु परा बुद्धिर्बुद्धेरात्मा महान्परः ॥ क उ १-३-१० ॥

indriyebhyah parā hyarthā arthebhyaśca parani manah |

manasastu parā Buddhirbuddherātmā mahānparaķ || ka u 1-3-10||

"Beyond the senses are the objects, beyond them is the mind, beyond the mind is the intellect, and beyond the intellect is the Cosmic Mind which is *Hiranyagarbha*."

Aitareya Upanişhad:

यदेतद्रृदयं मनश्चेतत् ।

संज्ञानमाज्ञानं विज्ञानं प्रज्ञानं मेधा दृष्टिर्धृतिमतिर्मनीषा जूतिः

स्मृतिः संकल्पः कतुरसुः कामो वश इति।

सर्वाण्येवैतानि प्रज्ञानस्य नामधेयानि भवंति ॥ ऐ उ २ - २ ॥

yadetaddhrdayani manaścaitat |

sañjñānamājñānam vijñānam prajñānam medhā dṛṣṭirdhṛtimatirmanīṣā jūtiḥ smrtih saṅkalpah kraturasuh kāmo vaśa iti \

sarvāņyevaitāni prajñānasya nāmadheyāni bhavanti || ai u 2 - 2||

Is it the heart (intellect) and the mind? It is consciousness, lordship, knowledge, wisdom, retentive power of mind, sense knowledge, steadfastness, though, thoughtfulness, sorrow, memory, concepts, purpose, life, desire, longing: all these are but various names of Consciousness (Prajnann). The question raised was answered by concluding that Consciousness is that $\bar{a}tm\bar{a}$ which has to be meditated upon. This entity – Consciousness – has several names as stated in the *Mantrnii*.

Vedāntasāraķ:

सूक्ष्मशरीराणि सप्तदशावयवानि लिङ्गशरीराणि ॥ वेदान्तसारः ६१ ॥

sūksmaśarīrānisaptadaśāvayavānilingaśarīrāni | Vedāntasārah 61 | |

Buddhiµ is one of the four parts of the *Āntaļıkaraņa* ("inner conscience, "the manifest *Manas*") and the other three parts are *Manaµ* (the *Manas*), *Cittā* (the memory) and *Ahaiıkāraµ* (the ego). *Buddhiµ* should decide properly otherwise *Manas* gets its instructions from the habit patterns stored in *Cittā* that are colored by *Ahaiıkāra*, the Ego. Often *Buddhiµ* is clouded by overall colouring and impressions in the *cittā*. Thus, a major task of *Sādhana* (spiritual practices) is to uncloud the clouded *Buddhiµ*.

मनो नाम सङ्कल्पविकल्पकान्तःकरणवृत्तिः ॥ वेदान्तसारः ६६ ॥

mano nāma saiikalpavikalpakāntaļikaraņavrttiļi | Vedāntasāraļi 66 | |

The mind (*Mano*) the modification of the internal instrument which considers the pros and cons of a subject (*Sankalpavikalpa*).

अनयोरेव चित्ताहङ्कारयोरन्तर्भावः ॥ वेदान्तसारः ६७ ॥

anayoreva cittāhankārayorantarbhāvaḥ | | Vedāntasāraḥ 67 | |

The Mind stuff (*Cite*) and egoism (*Ahaiikāra*<u>h</u>) are included in the intellect (*Guthi*) and the mind (*Mana*<u>h</u>) effectively.

अनुसन्धानात्मिकान्तःकरणवृत्तिः चित्तम् ॥ वेदान्तसारः ६८ ॥

anusandhānātmikāntaļıkaraņavŗttiļıCittam || Vedāntasāraļı 68||

Memory $(Citt\bar{a})$ is station of the inner organ which remembers.

अभिमानात्मिकान्तःकरणवृत्तिः अहङ्कारः ॥ वेदान्तसारः ६९॥

Abhimānātmikāntaļikaraņavŗttiļiahankāraļi | Vedāntasāraļi 69 | |

Egoism (*Ahaiikāraļi*) is that modification of the inner organ which is characterized by selfconsciousness.

एतेषां प्रकाशात्मकत्त्वात् सात्विकांशकार्यत्वम् ॥वेदान्तसारः ७१ ॥

eteșāni prakāśātmakattvāt sātvikāni śakāryatvam || Vedāntasāraļ 71 ||

On account of their being luminous they are said to be products of Sattva particles

इयं बुद्धिः ज्ञानेन्द्रियैः सहिता विज्ञानमयकोशो भवति ॥ वेदान्तसारः ७२ ॥

iyanı Buddhih jñānendriyaih sahitā vijñānamayakośo bhavati | | Vedāntasārah 72 | |

This intellect (Buddhih) together with ($J\tilde{n}\bar{a}nendriyaih$) the organs of perception constitute the intelligent sheath ($Vij\tilde{n}\bar{a}namayakośa$)

Vedāntaparibhāsā:

Is one of the finest texts in Advaita Vedanta which also elaborates the concept of Buddhilt in detail.

सा च वृत्तिश्चतुर्विधा - संशयः निश्चयः गर्वः स्मरणमिति । एवं वृत्तिभेदेन एकमप्यन्तः करणं मन इति बुद्धिरिति अहङ्कार इति चित्तमिति चाख्यायन्ते । तदुक्तम् - मनोबुद्धिरहङ्कारश्चित्तं करणमान्तरम् । संशयो निश्चयो गर्वः स्मरणं विषया इमे ॥ वेदान्तपरिभाषा ॥

sā ca vṛttiścaturvidhā - saniśayaḥ niścayaḥ garvaḥ smaraṇamiti | evani vṛttibhedena ekamapyantaḥkaraṇani mana iti Buddhiriti ahaṅkāra iti cittamiti cākhyāyante | taduktam manoBuddhirahaṅkāraścittani karaṇamāntaram | saniśayo niścayo garvaḥ smaraṇani viṣayā ime | | Vedāntaparibhāṣā | | (Shodaganga chapter 3 page 126).

That mental states are of four kinds; doubt, certitude, egoism and recollection. Vedanta-Paribhasa

2.4 VEDIC SOURCES AND CLASSICAL YOGIC TEXTS:

Includes Information from the following Yoga texts was compiled: -*Patanjali Yoga sutra's, tantric* scriptures, Taitareya Upanishad, kaṭhopaniṣad, Aitreya Upanishad, Bhagavadgita, Vedantasara and Vedāntaparibhāṣā

2.5 SUMMARY:

Buddhih denotes perception, cognition and discrimination. The analysis of the ancient texts concludes that the Indian authors from all the disciplines have paid more attention to nourish the inner existence. Buddhih being the focus of every walk of life to decide and discriminate what is

really required for life. Depth of analysis regarding $B_{ii}ddhih$ is positively critical in every manner in the ancient texts staring from *Upanishads* to *Prakarana Granthas*. All of these can be studied again at deeper levels. The techniques suggested by the Indian authors are truly applicable to any kind of situation when little modification according to the need and requirement.

Scientists for long have been trying to discern the seat of intelligence or intellect in the brain. CT scan images of individuals with brain damage have shown insights into the intellectual functioning of the brain. Scientists have been able to discern cognitive contributions of specific brain structures. Structures are located primarily within the left prefrontal cortex (behind the forehead), left temporal cortex (behind the ear) and left parietal cortex (at the top rear of the head) and in "white matter association tracts" that they connect were most important for general intelligence. The study provides new evidence that intelligence relies not on one brain region or even the whole brain but involves specific brain areas working together in a coordinated fashion. In fact, emerging body of neuroscience evidence indicates that intelligence depends on the brain's ability to integrate information from verbal, visual, spatial and executive processes. However further investigations into the biological basis of intelligence, exploring how the brain, genes, nutrition and the environment together interact to shape the development and continued evolution of the remarkable intellectual abilities that make us human are needed to understand intellect better (Barbey et al., 2012).

As per the ancient texts $B_{ll}ddhih$ is the discriminating faculty that is influenced by our senses/ J $n\bar{a}nendriy\bar{a}s$ – organs of knowledge or perception (eyes, ear, nose, tongue and skin). The distractions of the mind are because of these *Indriyās*. The basis of yoga is controlling the sense organs, slowing down the mind and transcending the ego. This is done by a systematic practice called Ashtanga Yoga. Harnessing the $B_{ll}ddhih$ has been greatly described in the yoga texts as described above. Yoga teaches us how to slow down the mind by practice of *āsanas* and *pranayama* and control the organs of perception and action by which one can restrain the senses inward thereby keeping the mental faculties alert and active. While asanas help in channelizing the flow of *prana*, pranayama (breath control) helps in slowing down the mind, *pratyahāra* helps in drawing these senses inward and *dharana* and *dhyana* help in further silencing the mind and Samadhi helps in transcending the ego. While doing *āsanas* there is *pratyahāra*, where there is body and breath awareness and the senses are drawn inward. Slowing of breath along with this internal awareness is known to slow down the mind, reduce distractions and improve mental faculties such as $B_{11}ddh_{11}h$. This is known to help sharpen the discerning intellect function without the interference and modifications by distract thoughts and sensory stimuli in children. Improvement in $B_{11}ddh_{11}h$ in context of education would therefore mean attention, concentration, focus, and memory which are the sub faculties of intellectual functioning.