Effects Of Balancing Asanas On Self-Expressive Creativity and IQ In Adolescents

Submitted by

Jagriti patra

Under the guidance of

Dr. Amaravathi Eraballi.Phd, MPT, IYT, IAP, ERY

Co-Guidance of

Mr. Rupesh Kumar

Towards the partial fulfilment for the degree of

Master of science in yoga

September 2022

to

DEPARTMENT OF YOGIC ART AND SCIENCE

VINAYA-BHAVANA, VISVA-BHARATI

(A Central University Of National Importance)

Santiniketan – 731235, West Bengal, India

ACKNOWLEDGEMENT

First and foremost, I would like to thank the Almighty God Anantashri Bhagawan Sitaramdas.Omkarnath Dev for his blessings, helping and guiding me throughout my study.

I would like to thank my father (**Joybed patra**) and mother (**Padmabati patra**), for always supporting me throughout my study and education.

I convey my deep sense of gratitude to **Dr. Amaravathi Eraballi** qualification of PhD in yoga & life sciences for the able guidance in completion of the project.

I am greatly indebted to my teacher, instructor and co-guide **Mr. Rupesh Kumar** qualification of M.Sc. in yoga for the help rendered in the completion of the study.

I express my thanks to all the other Staff Members of Yogic Art and Science for providing me timely guidance for the project.

I would like to thank all my Colleagues at Yogic Art and Science for their insightful comments, support and encouragement.

MS. JAGRITI PATRA

STANDARD INTERNATIONAL TRANSLITERATION CODE USED TO TRANSLITERATE *SAMSKṚTA* AND BENGALI WORDS

अ	आ	इ	ई	उ	ऊ	ऋ
a	ā	i	ī	u	ū	ṛ
অ	আ	ই	ঈ	উ	ঊ	ঋ
ॠ	ए	ऐ	ओ	औ	अं	अः
ṝ	e	ai	o	au	aṁ	aḥ
ৠ	এ	ঐ	ও	ঔ	ং	ঃ

क	ख	ग	घ	ङ
ka	kha	ga	gha	ṅa
ক	খ	গ	ঘ	ঙ
च	छ	ज	झ	ञ
ca	cha	ja	jha	ña
চ	ছ	জ	ঝ	ঞ
ट	ठ	ड	ढ	ण
ṭa	ṭha	ḍa	ḍha	ṇa
ট	ঠ	ড	ঢ	ণ
त	थ	द	ध	न
ta	tha	da	dha	na
ত	থ	দ	ধ	ন
प	फ	ब	भ	म
pa	pha	ba	bha	ma
প	ফ	ব	ভ	ম

य	र	ल	श	ष	स	ह
ya	ra	la	śa	ṣa	sa	h
য	র	ল	শ	ষ	স	হ
		क्ष	त्र	ज्ञ		
		kṣa	tra	jña		
		ক্ষ	ত্র	জ্ঞ		

Content

Effects Of Balancing Asanas On Self-Expressive Creativity and IQ In Adolescent.

Abstract

Background: Teenage is the turning point of human development where individuality starts from parenting. The ability of self-expressive skills and IQ get diverted easily in teenage. Hence there is a need for natural remedy to maintain self- expressive skills and IQ at teenage. Present study focusses on Yogic practices to maintain such psycho-physiological health.

Aim: Balancing asanas can improve self-expressive creativity and IQ in adolescents.

Objective: comparison of pre-post scores of self-expressive creativities. Comparison of pre-post scores of IQ comparison of experimental & control groups.

Methods: Pre-Post study.

Sampling: The study population total of 15 adolescents (12-17 YR.) Convincing sampling.

Parameters: The following instruments were used: Rosenberg Self-Esteem Scale (RSE), the Creativity personality test (25).

Intervention: Yoga routine practice time 45 mints for 26 days. (D. 01.10.2021 – 30.10.2021)

Result: The data will be analyzed in the MS-excel and the average and Standard deviations also calculated by the MS-excel.

Conclusion: The visual ability, voice recognition as a indicator of IQ, self-expressive creativity and static balance is improve by inhibit the extra curriculum of the brain with the yogic practices.

Keywords: self-expressive creative, IQ, Adolescents, cognitive development, self- esteem, standing-asanas, yoga.

CHAPTER-1

INTRODUCTION:

1.1 Adolescent characterization & development:

Adolescence is the time of life between childhood and youth. It is time for not only physical maturation but also mental and emotional development into adulthood independent and responsible. Major youth development responsibilities include training and fostering deep relationships and the development of identity, perspectives on the future, independence, self-confidence, self-control, and social skills. [1]

Adolescence, which runs from the beginning of puberty to adulthood, is a formative period in which changes in cognition, emotions, and interpersonal behavior take place after extensive biological transitions from infancy, especially with respect to puberty and the brain. Collectively, puberty, the neurobiological, cognitive, and psychosocial changes that take place during adolescence characterize a period of great opportunities for young people to flourish. When it is often thought of as a time of confusion and danger for young people, adolescence is more accurately considered as a time of development opportunities for youth to learn and develop. If equipped with their own resources and support, the regular process of growth and development can help adolescents to form healthy relationships with peers and families, develop a sense of identity and self, and experience rich and memorable struggles with the world. Adolescence thus forms a critical bridge between childhood and adulthood and is a critical window to the development of positive, changing lives. As a positive window of opportunity, youth represents a good time, where the benefits of young people and their development can lead to the betterment of social. [2]

Several previous studies have examined the range of metacognition training in adolescence. Improves self-esteem between adolescence and adulthood by working with concepts, spaces,

and social contexts. The program represents adolescence as a time in which a sense of self-knowledge is undergoing high level development (Sebastian et al., 2008). Self-awareness and self-identity are not understood, but the gradual improvement of the cognitive ability during the period of adolescence can be related to increasing egocentricity, self-perception, and self-consciousness. Theoretically, this enables adolescents to be more consistent with their role on stage, as they become more aware of and value the judgments of others (Sebastian et al., 2008), and when they are developed in detail. Identities separated from their families (Lapsley, 1991). [3]

The growth of the reproductive system at puberty is associated with the rise of gonadal steroid hormonal concentration. The brain has a large density of steroid receptors, and thus it is likely that sex hormones may have an effect on a neutral network during adolescence. (Sisk and Foster 13) We propose that the second wave of brain restoration occurs in adolescence, building on sexual differences during the earlier perinatal period. In this model, puberty hormones affect the further structure of the adolescent brain, so that it results in permanent reorganization of the brain, while neural networks are effectively detected for their active hormonal effects. Adult hormonal concentrations have different effects on hypothalamic-pituitary-adrenal Ax (HPA) in boys and girls: The rise in androgens in boys apparently inhibits hypothalamic secretion of corticotrophin - hormonal releasing (CRH), while estrogens in girls. To control the HPA axis upwards. Estrogens can make girls more accessible, while androgens makes boys more accessible to them.[1]

Stages of adolescence or middle adolescence (12-15 yrs.) stage, puberty is completed for both males and females. It slows the growth of the body in females, but persists in males. Young people in this state continue to increase the range of abstract thinking. In this regard, young people begin to extend their longstanding goals and to consider the significance of life and moral reasoning. Adolescents in this stage of development experience many social changes

and social movements, including increased self-inductions and increased threats of independence.

1.2 Intelligence\ IQ & self-expressive creativity:-

The definition of intelligence is a multiplicity of our cognitive architecture to enable effective adaptation. Many cognitive processes, such as perception, learning, memory, reasoning, and problem solving, are needed in the correct way to learn, understand and handle new situations All intelligence tests, from unified tasks to multi-faceted tasks, tend to generate a powerful general element that "g of the watcher" or "general intelligence".[4]

Meta-intelligence as a way to understand the relationships of control and coordination between a creative, analytical, practical and wisdom-based approach to problem solving (Sternberg n.d.b). Creative, analytical, practical, and intelligent approaches can be grounded in wisdom - or at least through meta-intelligence. An implicit approach involves the intellectual skills and attitude see also (Sternberg 2003) to be applied to one or more problems.[5]

The gray matter of the cork varies in IQ, albeit to a lesser extent than the gray cortical matter. The neuro image study illustrates the dynamic essence of the brain-intelligence relations. Ramsden and colleagues, combining the structure and function of the imagination, found that fluctuations in verbal IQ in adolescents were accompanied by changes in the gray matter region that was influenced by speech, whereas non-verbal IQ fluctuations were accompanied by changes in the gray matter region. which are activated by finger movements.In postnatal brain development, the greatest density of Gray matter first arrives in the primary sensorimotor cortex, and the prefrontal cortex develops last. The subcortical areas of the brain, especially the limbic system and the limb, develop more maturely, so that during

adolescence there is an imbalance between the more mature subcortical areas and the less mature prefrontal regions. This can take into account the typical patterns of behaviour among adolescents, even the most perilous. The high environmental influence of adolescent brain plasticity allows them to engage in particularly strong cortical effects in the cortical For many can receive different ways of knowing creation. According to investment theory, creativity requires a convergence of six distinct but coherent resources: intellectual faculties, knowledge, styles of thinking, personality, motivation, and environment. [6]

Previous studies shows that Effect of yoga practices on psycho-motor abilities among intellectually disabled children. [7]

The presented studies focus on the balancing asanas can improved IQ & self-expressive creativity or not.

1.3 Anatomy of Self Esteem and intelligence:

Our most difficult problem in discussing consciousness, thoughts, memory, and learning is that we do not know the neural mechanisms of a thought and we know little about the mechanisms of memory. We know that destruction of large portions of the cerebral cortex does not prevent a person from having thoughts, but it does reduce the depth of the thoughts and also the degree of awareness of the surroundings. Each thought certainly involves simultaneous signals in many portions of the cerebral cortex, thalamus, limbic system, and reticular formation of the brain stem. Some basic thoughts probably depend almost entirely on lower centres; the thought of pain is probably a good example because electrical stimulation of the human cortex seldom elicits anything more than mild pain, whereas stimulation of certain areas of the hypothalamus, amygdala, and mesencephalon can cause excruciating pain. Conversely, a type of thought pattern that does require large involvement of the cerebral cortex is that of vision because loss of the visual cortex causes complete

inability to perceive visual form or colour. We might formulate a provisional definition of a thought in terms of neural activity as follows: A thought results from a "pattern" of stimulation of many parts of the nervous system at the same time, probably involving most importantly the cerebral cortex, thalamus, limbic system, and upper reticular formation of the brain stem. This is called the holistic theory of thoughts. The stimulated areas of the limbic system, thalamus, and reticular formation are believed to determine the general nature of the thought, giving it such qualities as pleasure, displeasure, pain, comfort, crude modalities of sensation, localization to gross areas of the body, and other general characteristics. However, specific stimulated areas of the cerebral cortex determine discrete characteristics of the thought, such as (1) specific localization of sensations on the surface of the body and of objects in the fields of vision, (2) the feeling of the texture of silk, (3) visual recognition of the rectangular pattern of a concrete block wall, and (4) other individual characteristics that enter into one's overall awareness of a particular instant. Consciousness can perhaps be described as our continuing stream of awareness of either our surroundings or our sequential thoughts.

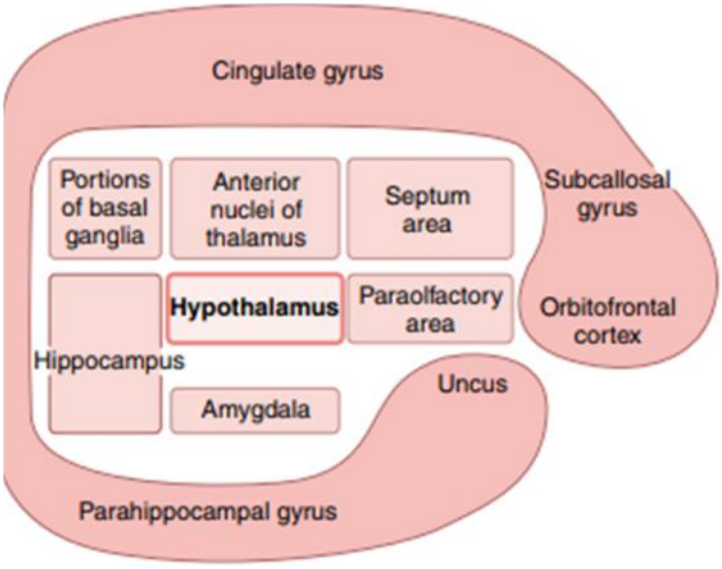


Image-1: Limbic system showing the key position of the hypothalamus

Nervous system and endocrine system are mainly responsible for the control and integration of all the body functions. Both Somatic (involuntary) as well as autonomic (Involuntary) Nervous system are intimately interlinked. All conscious-unconscious phenomena, vegetative or volitional functions, enduring or constantly changing activities in the body, are all integrated through neuro-endocrinal functions. Asanas, Bandhas, Pranayama and Mudras are known to influence neuro-endocrinal functions favorably through pressure changes within the body so as to contribute to qualitative effects on the psycho- physiological make-up of the Yoga practitioner (Readers may, with advantage, refer Abstracts and Bibliography of Articles in Yoga, Vol.182 Kaivalyadhama Publications, Lonavla, India, for research findings pertaining to these Yoga techniques.) Integrative functions of the brain: The brain receives sensory information through sensory nerves from the peripheral sensory organs. It interprets this information and integrates it with information retrieved from the memory. Apart from

Basic Rest Activity Cycle (BRAC), the brain also has altered states of conscious-ness that may occur under the influence of psychedelic drugs, during brain lesions and injuries or during meditative states or during yoga practices. Apart from memory the speech, as well as, emotions are the other most important functions of the brain. The limbic system of the brain is the nodal center for the neuro-endocrinal functions. Drugs like tranquillizer and antidepressants may affect this center influencing emotions in the process. Based on this integrated information it then initiates the motor action through the motor nerves to send out appropriate messages. Brain stimulation through yoga practices, via stimulation of vegetative system through pressure changes and enhanced circulation of oxy-hemoglobin to the brain, may influence the quality of a total consciousness favorably. It is now established that if the brain does not receive sufficient oxygen for the process of cerebration (i.e. mind-body activity), then carbon dioxide will cause severe hallucination and emotional over- reactions. Today's urban pollutions can thus be implicated with the rising violence and crime amongst city dwellers, particularly.

No part of the brain functions in isolation but functions with total integration and co-ordination with all other parts. Left hemisphere is concerned predominantly with linguistic ability and the right hemisphere plays dominant role in non-speech sounds like melodies, tactile sensations as well as abstract thinking and perceptions. Still integration is perceived within both the hemisphere on the functional level. This integration is well perceived through the influence of Anuloma Viloma Pranayama and other Yoga techniques proving to be vital in opening up of both the nostrils with equal force of breathing within them.

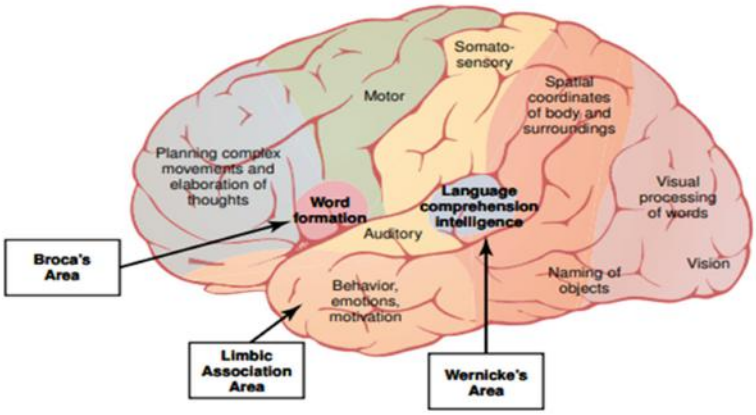
Sensory Feedback Phenomenon: Our sensory nerves bring impulses associated with (i) outside world as well as (ii) within the body itself, through all sensory organs and make these

available to the higher centers of the brain. Exteroceptive impulses are implicated with our environment outside the body and enteroceptive impulses are implicated with the changes taking place in internal body functions. Enteroceptive impulses are of two types: proprioceptive (concerning movements in the joints, body positions and a general awareness associated with muscular system) and viscероceptive (impulses associated with visceral organs).Significantly, in a larger extent the exteroceptive impulses, as well as, almost the whole of the interceptive impulses do not enter into the sphere of our consciousness because of reflex actions and homeostatic functions associated with lower centers of the Nervous system. Yoga practices try to bring these internal sensations to the field of o comprehensive awareness. The ensuing sensory feedback phenome brings a conscious control on all our internal activities. Biofeedback techniques, available today, work on the principle of Conscious-Sensory Feedback phenomenon. It is possible to make the internal c (visceral organs, Forehead muscles and even smooth muscles of the heart and brain) respond in a desired way through these techniques using some audio-visual signals. Thus one leans to influence the functions d the organ concerned. One can exercise some control on one's blood pressure, body temperature and even wave patterns of the brain toward the desired direction. Yoga techniques, however, increase our field of comprehensive awareness, including even the subtle-most internal activities, by virtue of inward awareness of the yogic nature. The comprehensive awareness of such activities gradually endows a yoga practitioner with an ability to control and regulate the functioning of the internal organs to a significant level. Psycho-physiological effects claimed for in Hatha Yogic texts point toward these phenomena quite convincingly.

1.4 Physiology of Self Esteem and intelligence:

Limbic association area. This area is found in the anterior pole of the temporal lobe, in the ventral portion of the frontal lobe, and in the cingulate gyrus lying deep in the longitudinal fissure on the mid surface of each cerebral hemisphere. It is especially highly developed in the dominant side of the brain—the left side in almost all right-handed people—and it plays the greatest single role of any part of the cerebral cortex for the higher comprehension levels of brain function that we call intelligence. Therefore, this region has been called by different names suggestive of an area that has almost global importance: the general interpretative area, the gnostic area, the knowing area, the tertiary association area, and so forth. It is best known as Wernicke's area in honour of the neurologist who first described its special significance in intellectual processes Psychological studies in patients with damage to the Non dominant hemisphere have suggested that this hemisphere may be especially important for understanding and interpreting music, nonverbal visual experiences (especially visual patterns), spatial relations between the person and their surroundings, the significance of "body language" and intonations of people's voices, and probably many somatic experiences related to use of the limbs and hands. Thus, even though we speak of the "dominant" hemisphere, this is primarily for language based intellectual functions; the so-called nondominant hemisphere might actually be dominant for some other types of intelligence.

Erect position of the spine in meditation pre-empts the possibility of compression of the abdominal viscera and frees the mind from the 'burden of body'. Pelvic region gets a richer blood supply toning up the coccygeal and the sacral nerves in the process. Slower Metabolic activity due to meditative posture results in minimum production of carbon dioxide in the body. As a result the mental activity of the practitioner ceases almost completely. Mind then remains undisturbed from voluntary and involuntary physical activities or movements.



1.5 Changes in adolescents with corona Situation or Pandemic:

The ongoing stress, anxiety, sadness and uncertainty caused by the COVID-19 pandemic. Hospitals have witnessed several mental health hazards among kids. Between March and October 2020, the percentage of timely visits to children with child mental health problems arise 24% for children ages 5-11, and among children and teens were severely injured. Many people have an emotionally difficult time coping. With 31% for children ages 12-17. More than 50% of suspected suicide attempts and emergency department visits among girls ages 12-17 at the beginning of 2021, compared to the same period in 2019.pandemic-related stress and traumas may have lasting effects on the mind development of children and pubescent young people can show signs of pain with symptoms, such as: changes in mood that are not beneficial to your child, such as permanent irritability, feelings of despair or anger, frequent conflicts with friends and family. Changes in behavior as pulling back from personal relationships. Loss of interest in activities that you previously enjoyed, having a hard time sleeping or sleeping or sleeping all the time, changes in appetite, weight or eating patterns, such as never hungry or eating all the time, problems with memory, thinking or defects. It is less interesting to decide in schools and in academic studies, specifically changes such as lack of basic personal health, increases in dangers or excessive behavior, such as drugs or alcohol, thoughts about death or death, or talking about it.

1.6 Modern medical treatment:

There is strong positive evidence to support the use of SBYP for the improvement of depression, self-esteem, subjective and psychological well-being, attention and academic performance and moderate evidence to support anxiety, self-concept, resilience, executive function, inhibition and working memory in neurotypical populations.

Evidence for the effectiveness of three months yoga on EF was demonstrated in this study, which may be a useful tool for the young orphans, to be practiced for cognitive health on a daily basis. The sustained effect of Yoga on EF seen in the present study may have potential implications on learning, classroom behaviour and in handling the adverse circumstances and stand as a preventive measure for mental health problems.

1.7 Yoga treatment:-

1.8 Deeper aspect of yogic branches:

Yoga is one of India's oldest and most extensive psycho-spiritual traditions. It has developed over 5,000 years in order to embrace a vast body of moral and ethical principles, mental postures and physical exercises. The word "yoga" is derived from the Sanskrit word "yuj", which means yoke or join. Yoga commonly refers to the union of body, mind and spirit. Usually this "triple path" technique has "yamas" (moral discipline), niyamas (incontinence), asanas (body parts), pranayama (breath control), pratyahara (sense inhibition), dharana (conflict), dhyana (meditation) and samadhi (state blessed.) All these forms seek Conscience, realization, and an incitement to their true self. In these unwanted texts we also have Hatha yogic, Raja yoga, Karma yoga, Bhakti yoga etc. The most important thing in today's world is the Patanjali yoga sutra and Hatha yoga. Naturally and comprehensively, these "eight-fold" exercises have been shown to improve the discipline, moral, human, ethical, empathy, compassion, attention, working-stage, mind-body-intelligence, visual orientation, and the

cognitive function of Jnanaindrya and Karmendriya**. In Concentrative Meditation, the stimulus repetition (constancy of the stimulus e.g. mantra, single object etc.) during one's focused attention to single concept, object or an experience of 'thoughtlessness' is said to lead to 'stimulus habituation' and inhibition of cognitive construing. Further, the Meditator switches off his anticipatory stance, leading to non requirement of 'cognitive' constructs. It has been generally found that both right and left hemispheric activity is inhibited during the advanced concentrative meditation. This may lead one to the state of "Transcendence'.** The system of Mento -spiritual training for realizing the true nature and the Creative potential of the Transcendental Consciousness' (Eternal Self) and its freedom from the conscious and unconscious impulsions, reactivities and conditioning of the Phenomenal Consciousness' (Empirical Self). Hathapadipika mentions about the conscious mental dynamics alleviation of psychosomatic disorders (H. P. V. 9.). The ancient men the West knew "Mens Sano in Corpore Sano". Ayurveda has an elaborat co understanding about the interdependence of the mind and the bod in (Caraka Su. IV.36). Now, modern scientists are also realizing the effect the of mental stales on bodily realms and vice-versa (Benson, 1970; Ornish ex 1991). Yoga, with its techniques to control and tap the dynamics of mind, can enrich, handsomely, the studies on mind-body interactions it The Yogic concepts like Triguna, Karmaphala, Citttibhumis and Panca an Kosa not only indicate deeper implications of mento-spiritual dynamics w in one's personality make-up but also show the way one should proceed to develop and transcend one's grosser and subtler aspects of personality co Experts in psycho-analysis, Gestalt and Cognitive-behavioral approaches ca may work hand-in-hand with yoga experts for better results in therapy as yoga has philosophical, as well as, psycho-neuro-endocrinal 2 approaches and can influence one's value systems on one hand and se ight one's psychophysiology on the other, if scientific reports have any dication.The Yogic understanding, that consciousness and mind are separate entities and not synonymous

terms, can solve the etymological difficulties concerning i) the bipolar concept of consciousness and the unconscious ii) mind-body interactions iii) continuity of one's existence and the concept of 'self-sameness' iv) Moral responsibility in interpersonal relationships and the like The Yogic view-point subscribes more to the transcendental nature of the consciousness while Western approach views the consciousness as phenomenal. Certain remarkable similarities between Yoga and psychoanalys are as follows: Both the sciences attempt to free the individual from nervous and defensive automatism that renders him slave of impuls and emotions, as in case of a compulsive criminal, a drug addict, kleptomaniac or any person showing obsessive thinking and compli actions. Both the sciences have the thesis that the problems of t humanity are caused due to the ignorance and the way to its remedy through knowing one's inner being. However, unlike psychoanaly Yoga alone proposes both Transcendental Consciousness (ie. Atman Self) and Phenomena Consciousness (i.e. mind, brain and the dynamics) as inherent parts of human personality. Moreover, Yoga ha a varied range of practices to correct, preserve and strengthen one' psychosomatic assets apart from the practicably sound metaphysic reasoning pertaining to the meaning and the purpose of human life and living. Analytical therapy seem to be only a preliminary form of Yoga, as its objectives of disentanglement from aberrant emotions, attainment of socially desirable Mento-emotional health, anxiety management. Reality perception and a greater satisfaction in social adjustment are considered to form, only a preparatory background for the higher yogic pursuits of Pratyahara, Dharana and Samadhi. A perfect psycho-physiological harmony, a total freedom from the bondage of all the inborn and the 'acquired' reactivities, culminating into Gunatita (beyond all attributes) state of Svarupavastha is alone held in the supreme esteem in Yoga. The para-sensual and absolute joy at this stage is said to have a healing effect for the mind-body complex. This joy is considered as a self regulating agent in yoga (B.GII:64) No wonder, Yoga is an advanced

science of antiquity while psycho-analysis has only a brief history behind its growth and development. Use of the subtle suggestion found in Yoga in the form of meaningful contents of Mantras and the tangible techniques of Tapa, Swadhyava and Iswarapranidhana may enrich the technology of suggestion in psychoanalysis, particularly, while tu inducing the analysand into a mento-emotional relaxation.) The Yogic concept of Kaivalya goes far beyond the analyst's conception of free psyche. Down-to-earth approach of Yoga in attaining Samadhi can attract the scientists to conduct research into observable effects of one's pursuit of Samadhi at different stages of its attainment.A Yoga expert is like a trainer rather than a moralist. He would not say, "Abstain from alcohol because it is bad, observe continence because incontinence is immoral and sinful". He has a terse premise that if you follow such and such practices you will evidence such and such results. According to Patanjala Yoga Sutra, for instance, a rigorous observance of certain codes of conduct (Yamas and Niyamas) and a diligent Abhyasa (practi of certain yoga techniques (Asana, Pranayama. Bandha a Mudra are considered as are considered as almost indispensab to successfully treading the path of Internal (Dharana, Dhya and Samadhi) Yoga which otherwise might prove to be quite cumbersome and an impractical affair.Orla Further, the yoga expert may prescribe certain mental practic as mentioned in P.Y.S.(I: 33. II: 3) to break the fixities a automatism at the physical level, as well as, certain mento-spirit exercises (different types of Kriya Yoga) to free the mind fro conscious and unconscious impulsions, reactivities a conditionings. He may, ultimately, prescribe the subtler s regulating psycho-physiological methods such as certa meditational practices to free oneself almost completely from dictates of mind and thus make oneself amenable to the dicta of Will and intuition". Swami Visnu Tirtha (1974) speaks of W power, "Will for action brings the requisite knowledge and W for knowledge gives the necessary impetus for work, because W is the creative energy in its potential state".In any therapy, the patient's participation in his own treatment process is known to enhance his self-

esteem, self-confidence, feeling of self-worth and his capability of adjustments at all levels. Yoga, also defined as a “Conscious Evolution’, provides abundantly such an opportunity Even the patients of cancer and AIDS, who are broken internally, may be helped with circumscribed meditational techniques. It is a responsibility of modern psychology to integrate such practices into its therapeutic process. Yoga may also, thus, be equipped with more reliable methods of communicating its essence and principles to the common man in his own common language if psychological counseling is employed judiciously.

1.9 Yogic perspective of mind(chitta)\ intelligence(buddhi):

According to Mandukya Upanisad, during the Jagrat (waking) state the Purusa gets the experience of the exter nal world with its gross objects in the Citta.' In the dream state though there are no relation with the external world there is only its knowledge and experience. In the same way, during the dreamless state, neither there is wish for the external object and its cognition, nor there is the expe rience of this state in the dream. In the Turiya state, the state of Citta is completely different from these three states. Neither there is the knowledge of the external world and the internal world nor of the both. The Purusa feels itself identical with Brahman losing once for all its feeling of duality. This state is transcendental state and thus indescri bable which is experienced during the realisation of self.

The suggestive "let go" element in Progressive relaxation and Autogenic training will be much more effective if the subject comprehends the distinction between the empirical self (Physical state, concrete thought, emotions and sensations) and the eternal Self (Creative thought, intuition and Will) as indicated in Yoga Darsana. Therefore, research into these concepts will enrich both the sciences, particularly in the area of

personality. Yoga Darsana provides means and ways for developing Intuition and Will as evidenced in the description of Siddhis and Vibhutis as mentioned in Patanjala Yoga Sutra. Therefore, further exploration in these areas will give an impetus to the research in the inner realm of humap personality. In modern psychological studies, self-expression, self-identity and self actualization have been found to be contributive to the development of Creativity and Intelligence. Therefore, the research into the yogic processes of Samyam (as dealt with in Patanjala Yoga Sutra, giving an expression to the power of will, ag may reveal multifarious possibilities to man for his personality development, through an enhanced creativity in his life related endeavors. Nature and constitution of mind and personality are the area where the co-operation between the two sciences is earnest called for. It may enable modern psychology to discover nes paradigms to study human personality. Modern psychology shoul make itself receptive in trying Yogic paradigms, involving theorie like Triguna. Cittabhumis and Panca Kosa. The description of these and the concepts of Mind, Self or Annan, show a surprising agreement amongst almost all the Indian thinkers of different time and geographical regions.

CHAPTER-2

2. ANCIENT LITERATURE :

2.1 Asanas for IQ & Self-expresive creativity form Patanjali yoga-sutra:

स्थिरसुखमासनम्॥४६॥

Sthirasukhamāsanam|| 2-46|| p.y.s

Sthira: steady; sukham: comfortable; āsanam: posture

Meaning: Steady and comfortable should be the posture. asana is taken to mean yogic exercises, but here it only means a posture which is meant for meditation. The asanas that bring about a state of equilibrium in the body should also be practiced.

प्रयत्नशैथिल्यानन्तसमापत्तिभ्याम्॥४७॥

Prayatnaśaithilyānantasamāpattibhyām||2-47|| p.y.s

By means of relaxation (śaithilya) of effort (prayatna) and absorption --samāpatti-(samāpattibhyām) in the infinite "in the infinite space around"-- (ananta) (Āsana or Posture is perfected)

Meaning : In order to become perfect, steady and comfortable in the asana which one has selected for meditation, one has to overcome tension and effort. So there should be relaxation of effort; there should be perfect relaxation in the asana. Secondly,the mind must be concentrated on ananta. The word ananta means endless. It also means the snake on which Lord Vishnu rests in the ocean of milk. So, symbolically, ananta means serpent, but in this sutra the serpent refers to the kundalini shakti. The student should concentrate on the serpent power in the mooladhara chakra, or any other method of concentrating on the kundalini

should be employed. The word relaxation or loosening of effort means that you should not struggle or apply any force. The asana must be perfectly relaxed and without any muscular or nervous tension.

2.2 Asanas for IQ & self-expresive creativity from Hatha yoga pradipika

हठस्य परथमाङ्गत्वादासनं पूर्वमुछ्यते |

कुर्यात्तदासनं सथैर्यमारोग्यं छाङ्ग-लाघवम || १७ ||

haṭhasya prathamāngghatvādāsanaṃ pūrvamuchyate

kuryāttadāsanaṃ sthairyamāroghyaṃ chānggha-lāghavam || c-1,v17||hyp

Prior to everything, asana is spoken of as the first part of hatha yoga.

Having done asana one gets steadiness (firmness) of body and mind;

diseaselessness and lightness (flexibility) of the limbs**.**

Meaing : practice asana, steadiness develops. Prana moves freely, and there is less chance of diseaseoccurring. Just as stagnant water is the breeding ground for all sorts of creatures, when prana stagnates anywhere in the body, conditions are perfect for bacteria to flourish; prana should move like swift flowing water. When prana flows freely, the body also becomes supple. Stiffness of the body is due to blockages and an accumulation of toxins. When prana begins to flow the toxins are removed from the system and you will be able to bend and stretch in a relaxed manner without having to do vigorous warming up exercises. When the store of prana is increased to a greater degree, the body will move by itself. You may find yourself spontaneously performing asanas and various bodily postures,

Explain virkhshasana form Gharanda Samhita:

अथ वृक्षासनम् ।

धामोरुमूलदेशे च याम्यं पादं निधाय तु ।

तिष्ठेत्तु वृक्षवद्मौ वृक्षासनमिदं विदुः ॥ ३६|| G.S

36. Stand straight on one leg (the left), bending the right leg, and placing the right foot on the root of the left thigh; standing thus like a tree on the ground, is called the Tree-posture.

2.3 Buddhi \ intelligence form bhagvad-gita :

इन्द्रियाणि पराण्याहुरिन्द्रियेभ्य: परं मन: |

मनसस्तु परा बुद्धिर्यो बुद्धे: परतस्तु स: || 3-42||BG

indriyāṇi parāṇyāhur indriyebhyaḥ paraṁ manaḥ

manasas tu parā buddhir yo buddheḥ paratas tu saḥ

Meaning : The senses are superior to the gross body, and superior to the senses is the mind. Beyond the mind is the intellect, and even beyond the intellect is the soul.

व्यवसायात्मिका बुद्धिरेकेह कुरुनन्दन |

बहुशाखा ह्यनन्ताश्च बुद्धयोऽव्यवसायिनाम् || 2-41||BG

vyavasāyātmikā buddhir ekeha kuru-nandana

bahu-śhākhā hyanantāśh cha buddhayo ’vyavasāyinām

Meaning: Buddhi yog is the art of detaching the mind from the fruits of actions, by developing a resolute decision of the intellect that all work is meant for the pleasure of God.

Such a person of resolute intellect cultivates single-minded focus on the goal, and traverses the path like an arrow released from the bow. This resolve becomes so strong in higher stages of sādhanā that nothing can deter the sādhak from treading the path. He or she thinks, “Even if there are millions of obstacles on my path, even if the whole world condemns me, even if I have to lay down my life, I will still not give up my sādhanā.” But those whose intellect is many-branched find their mind running in various directions. They are unable to develop the focus of mind that is required to tread the path to God.

प्रसादे सर्वदुःखानां हानिरस्योपजायते |

प्रसन्नचेतसो ह्याशु बुद्धिः पर्यवतिष्ठते || 2-65||BG

prasāde sarva-duḥkhānāṁ hānir asyopajāyate

prasanna-chetaso hyāśhu buddhiḥ paryavatiṣhṭhate

Meaning : By divine grace comes the peace in which all sorrows end, and the intellect of such a person of tranquil mind soon becomes firmly established in God.

श्रुतिविप्रतिपन्ना ते यदा स्थास्यति निश्चला |

समाधावचला बुद्धिस्तदा योगमवाप्स्यसि || 2-53||BG

śhruti-vipratipannā te yadā sthāsyati niśhchalā

samādhāv-achalā buddhis tadā yogam avāpsyasi

When your intellect ceases to be allured by the fruitive sections of the Vedas and remains steadfast in divine consciousness, you will then attain the state of perfect Yog.

क्रोधाद्भवति सम्मोहः सम्मोहात्स्मृतिविभ्रमः |

स्मृतिभ्रंशाद् बुद्धिनाशो बुद्धिनाशात्प्रणश्यति ||2- 63||BG

krodhād bhavati sammohaḥ sammohāt smṛiti-vibhramaḥ

smṛiti-bhranśhād buddhi-nāśho buddhi-nāśhāt praṇaśhyati

Anger leads to clouding of judgment, which results in bewilderment of memory. When memory is bewildered, the intellect gets destroyed; and when the intellect is destroyed, one is ruined.

3. SCINTIFIC LITERATURE:

1. As per study by vishvanatha pise, balaram pradhan et,al.2018 improvement in static balance , agility , reaction time , with yogasana and pranayama for 12 weeks , in the present study focus only on balancing asanas with standing asanas it gives a clarification about psycho-motor function.

2. as per study by María del Carmen Pérez-Fuentes, María del Mar Molero Jurado, et.al 2019 developed self-expression for acquiring identity and self-efficacy through the positive influence of peers, which promotes feelings of empowerment and self-affirmation through constructive tasks that reinforce self-esteem and emotional intelligence, in the present study focus only on self-expressive creativity and IQ development though the standing balancing asanas.

3.Previous study focused on raise of follow of intelligence over period of time and they also explain factuality of inveiorment structure .so, in may expected in the present study but conformed after these results. This technical review for present study because our aim is not focused in brain imaginary- techniques but we tried with subjected base on intelligence ,creativity, self-esteem, self-confidence, duration of holding time of asanas.(Luca Rinaldi1,2,* and Annette Karmiloff-Smith 2017)

4.as per study by Kerstin Konrad, Prof. Dr. rer. nat.,*,1 Christine Firk, Dr. PhD,2 and Peter J Uhlhaas, Dr. PhD 2013 The high plasticity of the adolescent brain permits environmental influences to exert particularly strong effects on cortical circuitry. While this makes intellectual and emotional development possible, it also opens the door to potentially harmful influences. In the present study fouces on self-expressive creativity and IQ development though in standing balancing asanas.

CHAPTER – 3

4. METHODOLOGY:

4.1 Aim :

To improve self-expressive creativity and IQ in adolescents Balancing asanas.

4.2 Objectives:

Comparison of pre-post scores of self-expressive creativities.

Comparison of pre-post scores of IQ comparison of experimental & control groups.

4.3 Hypothesis

Positive hypothesis (Hp) balancing asanas may improve self-expressive creativity and IQ in adolescents.

Null hypothesis (Ho) balancing asanas may or may not improve self-expressive creativity and IQ in adolescents.

Negative hypothesis (Hn) balancing asanas may not improve self-expressive creativity and IQ in adolescents.

4.4 Study design: Pre-Post study.

4.5 Sampling method:

The study population total of 15 adolescents (12-17 YR.) Convenient sampling,

Place: Sishutritha school Santineketan**.**

Class- 6-8 girls and boys

4.6 Parameters: The following instruments were used: Rosenberg Self-Esteem Scale (RSE), the Creativity personality test (25).

Scientist name- Rosenberg Self-Esteem Scale (RSE)Author Morris Rosenberg the Creativity personality test (25) Sperry

Year of intervention- Rosenberg Self-Esteem Scale (RSE)-1965

The Creativity personality test (25)- 1960

4.7 Scoring method- As the RSE is a Guttman scale, scoring can be a little complicated. Scoring involves a method of combined ratings. Low self-esteem responses are "disagree" or "strongly disagree" on items 1, 3, 4, 7, 10, and "strongly agree" or "agree" on items 2, 5, 6, 8, 9. Two or three out of three correct r1sesponses to items 3, 7, and 9 are scored as one item. One or two out of two correct responses for items 4 and 5 are considered as a single item; items 1,8, and 10 are scored as individual items; and combined correct responses (one or two out of two) to items 2 and 6 are considered to be a single item. The scale can also be scored by totalling the individual 4 point items after reverse-scoring the negatively worded items.

Reliability: The RSE demonstrates a Guttmann scale coefficient of reproducibility of .92, indicating excellent internal consistency. Test-retest reliability over a period of 2 weeks reveals correlations of .85 and .88, indicating excellent stability.

Validity: Demonstrates concurrent, predictive and construct validity using known groups. The RSE correlates significantly with other measures of self-esteem, including the Coppersmith Self-Esteem Inventory. In addition, the RSE correlates in the predicted direction with measures of depression and anxiety.

Total score 90 –125 this score indicates a high degree of creativity and means that the right, creative, side of your brain appears to be extremely active. People who are creative in nature are likely to have tried out many different pursuits during their lifetime and will continue to do so in the coming years, as they are never afraid of trying out something new. It is even possible that you have already achieved some degree of success and fulfilment within a

creative environment, e.g. as a writer or designer. It is suggested that people who have achieved a high score on this test, but who have not yet experimented with creative pursuits such as painting, garden or interior design or music, should follow their intuition and do so now, whatever their age, since they appear to have the necessary qualities, which possibly have been lying dormant, to achieve success and fulfilment in some sort of creative pursuit. While it is difficult to be too creative, people who have scored highly on this test should not overlook the importance of developing their analytical and intellectual skills, as well as their creative talents. Total score 65 –89 this score indicates an average degree of creativity. Although you may exhibit creative tendencies, a score at the lower end of this group suggests it is possible you may have neither the time nor the confidence to try out new creative pursuits. In order to become more creative it may be necessary to develop more confidence and be more relaxed about taking intellectual risks, such as sitting down and doing some drawing or painting, or making a start on writing the novel you always felt was inside you.

A score within the higher range of this group suggests that you may have already achieved some degree of creative success, but that you may also have major undeveloped talents waiting to surface and be cultivated. Generally, however, any score within this group does suggest you are in the fortunate position of being able to balance your creative tendencies with logical and analytically formed judgements in order to turn many of your ideas into a single, realistic and workable concept. Total score less than 65 although this score indicates a lower than average degree of creative talents there may be many reasons for this, e.g. while you may possess a rich storehouse of ideas, it may be that you feel more comfortable when guided by set principles and traditional conventions. Although each one of us has the potential to be creative in some way or other, it may be that, like many other people, you have not yet explored your creative talents. It is quite likely that your skill outlets have been channelled into one particular area in order to develop a career, and as such you are a

specialist who has little time to explore other avenues. Creativity and intellect are two quite separate brain functions and it is thus entirely possible to be highly intellectual in some fields but not creative, and vice versa. It is, however, possible to train yourself to bring out latent creative talents if you have the time and inclination to do so. By exploring new avenues and learning experiences it is possible to broaden your horizons considerably, and possibly surprise yourself by discovering you possess creative talents and aptitudes of which you were previously unaware.

4.8 Intervention: Yoga routine practice time 45 mints for 21 days. (D. 01.10.2021 – 28.12.2021) 15 mints warm-up.5 mints 5 round sun-salutation.30 mints 5 balancing asanas- Ekapada paranamasana, garudasana, saral-natarajasana, EkaPadasana ,utthita hasta padangusthasana.5 mints yogic breathing practice.5 mints dhyana & om chanting\ mantra chanting.

4.9 Practice Chart :-

1.	Opening prayer	"OmSahanavavatu Sahanaubhunaktu Sahaviryamkaravavahai Tejasvinavadhitamastu Mavidvisavahai Om Shantih, Shantih, Shantih."
2.	Sukshma vyama	I. Smarana Sakti Vikasaka, II. Medha Sakti Vikasaka III. Netra Shakti Vikasaka IV. Karna Shakti Vikasaka. V. Waram-Up-Loosing Practice
3.	Sun-salutation	5 times with breathing
4.	Asanas	I. Ekapada Pranamasana

		II. Garudasana III. Saral Natarajasana IV. Eka Padasana V. Utthita Hasta Padangusthasana
5.	Pranayama	I. Natural Breathing II. Abdominal Breathing III. Thoracic Breathing IV. Clavicular Breathing V. Yogic Breathing
6.	Mudra	Jnana and chin mudras
7.	Dhyana	10 mints dhyana practice
8.	Closing prayer	Om chanting A-3 times U-3 time M-3 times Aum-3 times

4.10 Descriptions of Balancing Asanas in yogic view point:

Asanas name	Sanskrit name	English name	Chakra	Internal organ benefits
1.Ekapadapranamasana	एकपदापरनामा आसन	One-legged prayer pose	Ajna/anahata chakra	This asana develops nervous balance. It also strengthens the leg, ankle and foot muscles.
2. Garudasana	गरुड़ासन	eagle pose	mooladhara chakra	Garudasana improves concentration, strengthens the muscles and loosens the joints of the shoulders, arms and legs, and is good for the upper back.
3. Saral Natarajasana	सरल नटराजासन	preparatory Lord Shiva's pose	Anahata or manipura	It helps develop a sense of balance and coordination and improves concentration
4. Eka Padasana	एका पदासना	one foot pose	swadhisthana or manipura chakra.	This asana to develop muscular coordination, nervous balance and concentration.
5.UtthitaHasta Padangusthasana	उठा हुआ हाथ पैर की अंगुली सीट	raised hand to big toe pose	mooladhara or swadhisthana chakra	Improves concentration and coordinates muscular and nervous balance. The hips and leg muscles are strengthened

				and toned, and the hamstrings are stretched, helping the knee and ankle joints.

CHAPTER - 4

5.1 RESULTS : The data enter into excel sheet. The data is tabulated and made into graphs for better understanding by using mean values. Percentage change also given in tables for more understanding .table are shown in three major divisions. Table-1: demographic data, Table-2: general parameters, Table-3: specific parameters. General parameters are sub divided into three parts. Tablel-2.1: physical body. Table-2.2: respiratory. Table-2.3 cardio-vascular. Specific parameters are shown in two separate divisions. Table-3.1 creative personality test (CPT).Table-3.2 Rosenberg self-esteem scale (RSE). Graphs shown after every table. Abbreviations are given below every table and graph.

After noticing the results the positive hypothesis was proved and failed in null hypothesis (Hp) and negative hypothesis (Ho) .so ,the alternative hypothesis(Hn) is " is there difference between IQ & self-expressive creative between whom gender differences ".

CHAPTER – 5

6. DISCUSSIONS :

Physical body parameter:

The BMI parameter became neutral from 18.445±2.44 to 18.445±2.44 with 0% of changes.

Respiratory parameters:

The respiratory rate data shows improvement from 17.4±4.74 to 14.5±2.27 with -16.6% of changes. And the less standard deviation indicates the less scatter-ness in the data.

The IBRT data shows improvement from 32±10.47 to 34.2±9.47 with 6.8% of changes. And the less standard deviation indicates the data become more closer to the mean value.

The EBRT data shows improvement from 24.4±7.66 to 25.1±7.20 with 2.8 % of changes. And the less standard deviation indicate the data become more closer to the mean value.

The PEFR data remains neutral from 331.5±62.45 to 331.5±65.88 with 0% of changes. But the less standard deviation shows the data become more closer to the mean value.

Cardiovascular parameter:

The pulse rate data shows improvement from 55.37±11.90 to 66.2±10.26 with 19.7 % of changes. And the less scatter-ness of standard deviation shows the pulse rate data become more one pointed.

The Pulse Oximeter data shows improvement from 96.6±1.83 to 97.6±1.26 with 1 % of changes. And the less standard deviation shows the oxygen saturation data become more closer mean value.

The SBP data shows improvement from 123±6.74 to 120±0 with -2.4% changes. And the less scatter-ness indicate the data are very much closer to mean.

The DBP data shows improvement from 82±4.21 to 80±0 with -2.4 % changes. And the zero-standard deviation of post data refers that the data become very much closer to mean value.

Specific parameters:

The RAC data shows significant improvements from 13.6±3.43 to 18.2±2.74 with 33.8 % of changes. Also the standard deviation shows less scatter-ness in the post data.

The CPT data shows significant improvements from 90.8±12 to 102.1±7.90 with 1.24% of changes. So the standard deviation shows more one-pointiness among the post data.

The Static balance data shows significant improvement from 2.1±0.73 to 0.6±0.69 with -71.4% of changes. And the less standard deviation shows the less scatter-ness among the post data.

7. LIMITATIONS:

The psychological parameters may have shows different changes instead of the actual changes in the brain cortex.

This study is majorly based on the self-inspection module. So the participant may give the bias data in the questionnaires.

The intervention time may be cause less and actual impact on IQ, self-expressive creativity and static balance.

The non-homogenic participant in age may have a different outcome which I ignore in this study.

8. STRENTGHTS:

There have few research papers about the effect on IQ, self-expressive creativity and static balance with yogic perspectives, but in my study the yogic protocol is different. So, we can surely say that there has a positive impact with.

My study opens up farther study with the support of machinery (EEG, ECG, Muscle MR) data for IQ, self-expressive creativity and static balance, which will be more reliable.

We can explore the extension method of IQ, self-expressive creativity and static balance with the yoga as a way of life.

9. CONCLUSION :

Only twenty-six days of practice involves simultaneous signals in many portions of the cerebral cortex, thalamus, limbic system, and reticular formation of the brain stem and psychomotor abilities.

The basic thoughts almost entirely on lower centres; the thought of pain is probably a good improve as electrical stimulation of the human cortex seldom elicits anything more than mild pain, whereas stimulation of certain areas of the hypothalamus, amygdala, and mesencephalon can cause excruciating pain reduce by these yogic practices.

The visual ability, voice recognition as a indicator of IQ, self-expressive creativity and static balance is improve by inhibit the extra curriculum of the brain with the yogic practices.

CHAPTER – 6

10. REFERECES :

1.Kerstin Konrad, Prof. Dr. rer. nat.,*,1 Christine Firk, Dr. PhD,2 and Peter J Uhlhaas, Dr. PhD3 Brain Development During Adolescence [Dtsch Arztebl Int. 2013 Jun; 110(25): 425–431]. Published online 2013 Jun21.Doi:10.3238/arztebl.2013.0425PMCID:PMC3705203PMID:2384028 Review Article [pubmed]

2. National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Division of Behavioral and Social Sciences and Education; Board on Children, Youth, and Families; Committee on the Neurobiological and Socio-behavioral Science of Adolescent Development and Its Applications; Editors: Emily P. Backes and Richard J. Bonnie.Washington (DC): National Academies Press (US).[pubmed]

2019 May 16.ISBN-13: 978-0-309-49008-5ISBN-10:0-309-49008-1

3. Leonora G.Weila1Stephen M.Flemingcd1IroiseDumontheila1Emma J.KilfordaRimona S.WeilabGeraintReesabRaymond J.DolanbSarah-JayneBlakemorea The development of metacognitive ability in adolescence Volume 22, Issue 1, March 2013, Pages 264-271[pubmed]

4. Luca Rinaldi1,2, and Annette Karmiloff-Smith3 Intelligence as a Developing Function: A Neuroconstructivist Approach J Intell. 2017 Jun; 5(2): 18.Published online 2017 Apr 29. doi: 10.3390/jintelligence5020018 PMCID: PMC6526422 ,PMID: 31162409 [pubmed]

5. Robert J. Sternberg 1,Vlad Glaveanu 2,3 Sareh Karami 4 , James C. Kaufman5 Shane N. Phillipson 6 and David D. Preiss 7 Meta-Intelligence: Understanding, Control, and

Interactivity between Creative, Analytical, Practical, and Wisdom-Based Approaches in Problem Solving g. Journal of Intelligence 9: 19.doi.org/10.3390/jintelligence9020019 Received: 21 November 2020Accepted: 29 March 2021Published: 2 April 2021[MDPI] [pubmed]

6. María del Carmen Pérez-Fuentes,1,2 María del Mar Molero Jurado,1,* José Jesús Gázquez Linares,3 Nieves Fátima Oropesa Ruiz,1 María del Mar Simón Márquez,1 and Mahia Saracostti4 *Self-Expressive Creativity in the Adolescent Digital Domain: Personality, Self-Esteem, and Emotions* J Environ Res Public Health. 16(22); 2019 Nov PMC6888092 (pubmed)

7. Vishvanath Pise,1 Balaram Pradhan,1,* and Manmath Gharote2 Effect of yoga practices on psycho-motor abilities among intellectually disabled children J Exerc Rehabil. 2018 Aug; 14(4): 581–585.Published online 2018 Aug 24. doi: 10.12965/jer.1836290.145PMCID: PMC6165980PMID: 30276177 (pubmed)

11. Bibliography:

8. Swami Satyananda saraswati. Four Chapters on Freedom: Commentary on the Yoga Sutras of Patanjal. ISBN-108185787182 ISBN-13978-8185787183

9. Shrimad Bhagwat Gita (Saadhak Sanjeevani by Swami Ramsukhdasji) Part 1 & 2 Set - Romanized Edition with English translation. ASINB08DFFFWGS.

10. Muktibodhananda Swami. Hatha Yoga Pradipika. PublisherBihar School of Yoga; Reprint edition (1 January 1999). ASIN8185787387.

11. Swami Nirajananda Saraswati. Gheranda Samhita- commentary on the yoga techniquies of Maharshri Gheranda. ISBN-13: 978-9381620199.

12. Muktibodhananda Swami. Hatha Yoga Pradipika. PublisherBihar School of Yoga; Reprint edition (1 January 1999). ASIN8185787387.

12. Annexure:

12.1 RSE Questionneirs

Revised date (4 October 2006)

62

RSE

Please record the appropriate answer for each item, depending on whether you Strongly agree, agree, disagree, or strongly disagree with it.

1 = Strongly agree
2 = Agree
3 = Disagree
4 = Strongly disagree

_____ 1. On the whole, I am satisfied with myself.
_____ 2. At times I think I am no good at all.
_____ 3. I feel that I have a number of good qualities.
_____ 4. I am able to do things as well as most other people.
_____ 5. I feel 1do not have much to be proud of.
_____ 6. I certainly feel useless at times.
_____ 7. I feel that I'm a person of worth.
_____ 8. I wish I could have more respect for myself.
_____ 9. All in all, I am inclined to think that I am a failure.
_____ 10. I take a positive attitude toward myself.

12.2 CPT questionnaires:

Test 4.0 Creativity personality test

In each of the following, choose from a scale of 1–5 which of these statements you most agree with or is most applicable to yourself. Choose just one of the numbers 1–5 in each of the 25 statements. Choose 5 for most agree/most applicable option, down to 1 for least agree/least applicable:

1 I find it very difficult to concentrate on just one subject or project for a long period without breaking off to do other things.

5 4 3 2 1

2 I am more of a visionary, rather than someone who is down to earth and businesslike.

5 4 3 2 1

3 I often have the urge to try out a new hobby, such as painting or playing a musical instrument.

5 4 3 2 1

4 I am not afraid to voice unpopular opinions.

5 4 3 2 1

5 I like to retire into my own thoughts uninterrupted for a thinking session.

5 4 3 2 1

6 I would describe myself as more disordered than methodical.

5 4 3 2 1

7 The greatest teacher of all is experience.

5 4 3 2 1

8 I am more sensitive than the average person when it comes to environmental issues.

5 4 3 2 1

9 I have more of an interest and/or curiosity in modern art than a 'dismissing it as rubbish' attitude.

5 4 3 2 1

9 I have more of an interest and/or curiosity in modern art than a 'dismissing it as rubbish' attitude.

5 4 3 2 1

10 I often have the urge to take things apart to see how they work.

5 4 3 2 1

11 I have a very overactive mind, to the extent that I sometimes find it difficult to get to sleep at night.

5 4 3 2 1

12 I enjoy being unconventional.

5 4 3 2 1

13 I am more of an intuitive person than an intellectual.

5 4 3 2 1

14 When attending a talk or lecture, I often find myself drifting off and thinking of other things.

5 4 3 2 1

15 I sometimes get very frustrated with myself if I cannot do something as well as I would like to.

5 4 3 2 1

16 I prefer solitude and scenery to lively social gatherings.

5 4 3 2 1

17 I often find myself irritated by petty rules and regulations.

5 4 3 2 1

18 I have a very lively imagination.

5 4 3 2 1

19 I am often very impatient to learn new things.

5 4 3 2 1

20 I more than occasionally have dreams that I am unable to explain.

5 4 3 2 1

5 4 3 2 1

17 I often find myself irritated by petty rules and regulations.

5 4 3 2 1

18 I have a very lively imagination.

5 4 3 2 1

19 I am often very impatient to learn new things.

5 4 3 2 1

20 I more than occasionally have dreams that I am unable to explain.

5 4 3 2 1

21 I am very independent minded.

5 4 3 2 1

Creativity

22 Anytime I get a flash of inspiration or a new idea, my mind cannot rest until I have tried to put it into practice.

5 4 3 2 1

23 I enjoy spending time on my own.

5 4 3 2 1

24 I revel in being different to others.

5 4 3 2 1

25 When hanging onto the phone, with a pencil in my hand and a piece of paper in front of me, the probability is that I will start to doodle.

5 4 3 2 1