

Effects of Pranayama on Memory Enhancement and Concentration among College Students

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Abstract – The present examination demonstrates that the Pranayama can possibly improve memory and concentration in sound people. These parts thusly, upgrade a person's physical fitness. Pranayama does not require any apparatuses or gadgets, restricted space is sufficient to execute them. To think about "Impacts of Pranayama on Memory Enhancement and Concentration in undergrads", a group of 20 students between age group 20-25 years, has taken part in training. The strategy used to gather the data was in sit and achieve test (adaptability) and the data were gathered on 20 students. After that the data was broke down with the assistance of t-test (pretest and posttest) to discover the significance contrast. The dimensions of significance choosen was 0.05. The memory and concentration develop subsequent to conferring multi week training (yoga Pranayama) to understudies. The Pranayama improves the concentration of the students, upgrades the learning procedure, and encourages students to improve scholastic execution. Notwithstanding, from the present examination, it very well may be reasoned that Pranayama is a simpler method to improve memory and concentration power.

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INTRODUCTION

Pranayama was begun more than 6000 years prior in India and is the breathing strategy of yoga that does some amazing things in expanding physical and psychological execution. In present day, in India, a disturbing mindfulness was seen in wellbeing and natural cures among individuals by yoga and Pranayama which has been demonstrated a viable strategy for improving wellbeing notwithstanding avoidance and management of diseases. With expanding logical research in yoga, its helpful viewpoints are additionally being investigated. Yoga and Pranayama is accounted for to decrease stress and nervousness, improves concentration and memory power by activating neuro hormonal instruments by the concealment of thoughtful activity. The old yogis and rishis contemplated nature in extraordinary subtleties. They saw that creatures with a moderate breath rate, for example, pythons, elephants and tortoises have a long life expectancy, though those with a quick breathing rate – pooches, winged animals, and bunnies live for just a couple of years. From this perception they understood the significance of moderate breathing for expanding the life expectancy. Old yogis found that breathing is the physical piece of reasoning and that reasoning is the psychological piece of breathing. Each idea you think changes the mood of breath and every breath changes the beat of reasoning. Along these lines, when we are glad and quiet our breathing is

Rhythmic, however from the minute we are bothered with the stress or dread our breathing is sporadic and intruded. Antiquated yogis saw the connection among breathing and mental action and understood that by controlling breath, we can control mental action and along these lines, the craft of Pranayama was brought into the world with different procedures which manage breath. Likewise, yoga-related terms like Pranayama and Samadhiis referenced in stanza 4.29 of the Bhagavad Gita which expresses that Pranayama is meant "daze prompted by halting all breathing". Pranayama is a fourth of the eight appendages of yoga that portrayed in the Yoga Sutras. The word Pranayama compound of two words: "prana" and "ayama". Where Prana partitioned into "pra" – prefix and "a" – to breathe, to live. Prana is life power or the vast essential energy and Ayama intends to extend, to control, to grow. We can say that Pranayamas control, increment and channelize the energy potential into a positive heading. By doing Pranayama or managing breathing developments one can accomplish a solid body and mind.

Presently in the contemporary occasions, everybody has feeling about yoga rehearses towards the safeguarding, support and advancement of wellbeing. Yoga has spread everywhere throughout the world by the lessons of extraordinary personalities like Swami Shivananda,

Shri T.Krishnamacharya, Swami Kuvalayananda, ShriYogendara, Swami Rama, Sri Aurobindo, Maharshi Mahesh Yogi, Acharya Rajanish, Pattabhijois, BKS. Iyengar, Swami SatyanandaSarasvati (April 23, 2015 By Dr.Ishwar V. Basavaraddi). Ashtang yoga, as depicted by Maharishi Patañjali, includes eight phases viz. yam (implicit rules, poise), niyam (religious observances, duties to rehearse, for example, study and dedication), asana (joining of mind and body through physical stances), pranayam (guideline of breath prompting combination of mind and body for example controlled breathing), pratyahar (reflection of the faculties, withdrawal of the faculties of recognition from their items), dharana (concentration, one-sharpness of mind), dhyan (contemplation) and Samadhi (the tranquil condition of merry mindfulness, superconscious state). Sun greeting, additionally called as Suryanamaskar, sun love for wellbeing, proficiency and life span is a piece of Indian conventional yogic practices. It includes pranayam, asana and upasana for example customs. In Pranayama, the mind is centered around the breath as it streams all through the body. Oxygen and prana (energy) are additionally expanded in the body and mind by the guideline of breath. In this manner, Pranayama builds concentration just as sustains the cerebrum. Henceforth the present investigation was intended to assess changes in memory and concentration with ordinary utilization of Pranayama. 20 students were chosen through technique for irregular inspecting from the all populace (20 to multiyear) of DAV College, Chandigarh. The group under investigation comprises of 20 undergrads. An address was conveyed to the students under examination. At that point MCQ test conveying 10 inquiry and general questionnaire involving things posing to students to rate their dimension of concession to 5 point likert scale, was conveyed. 10 questions were given in each test. At that point the multi week training program (Pranayama) was received and connected on the subjects. After that the scientist again pursues a similar system and directed the MCQ test and general questionnaire.

DESIGN OF STUDY

The group under examination comprises of 20 undergrads. An address on general theme was conveyed to the students under investigation and after that MCQ test was conveyed. 10 questions were given in MCQ. At that point the multi week training program (Pranayama) was received and connected on the subjects. Following a month and a half, an address on general theme is conveyed and after that the analyst again took MCQ test conveying 10 questions. An input questionnaire was set up with the assistance of visual simple scale. Questionnaire was undermined of things soliciting students to rate their dimension from concurrence on five point Likert scale. Results were assessed utilizing a five point scale extending from strongly concur (SA=5), concur

(A=4), uncertain (UD=3), disagree (DA=2), strongly disagree (SDA=1). Notwithstanding the questionnaire four open finished inquiries were posed about the advantages and disadvantages of PRANAYAMA as an educational tool.

ANALYSIS OF DATA

Statistical analysis of the project was done on the basis of the following formula:-

1. For calculation of t-test we used formula-

$$t\text{-Test} = \frac{M_1 - M_2}{SE_D}$$

Whereas,

M_1 = mean of Pre-Test,

M_2 = Mean of Post- Test,

SE_D = Standard Error Deviation

2. For calculation of M_1 and M_2 are-

$$M_1 = \frac{\sum X_1}{N} \text{ and } M_2 = \frac{\sum X_2}{N}$$

Whereas,

$\sum X_1$ = Total Score of Pre test

$\sum X_2$ = Total Score of Post test

N = Total Number of Sample

3. For Calculation of SE_D ,

$$SE_D = \sqrt{(\sigma M_1)^2 + (\sigma M_2)^2 - 2 \times r \times \sigma M_1 \times \sigma M_2}$$

Whereas,

σM_1 = Standard Deviation of Mean of Pre test,

σM_2 = Standard Deviation of Mean of Post test,

r = Correlation between the Mean of Pre and Post test,

4. For calculation of Standard Deviation of obtained Score are:

$$\sigma = \sqrt{\frac{\sum x^2}{N}}$$

$$\sigma = \sqrt{\frac{\sum x^2}{N}}$$

$$\sigma M = \sigma / \sqrt{N}$$

Whereas,

σ = Standard Deviation

N = Number of raw score

SUMMARY

The present examination is center around "Impacts of Pranayama on memory improvement and concentration". The examination was delimited to 20 understudies with the age group of subject 20-25 years. There was no influence over the eating regimen of the subject under investigation unit. Analyst did not think about the social – economic status. It was invalid speculation to discover the significance contrast in this study. The destinations of this investigation were to discover the dimension of memory and concentration. This sort of concentrate will supportive for the individuals who are teachers, trainer, and coaches. On the premise of the logical aftereffects of Pranayama tests we can say that when Pran, for example oxygen component is encouraged into the body by specific strategies at a clear time in an unmistakable sum with legitimate reasoning, positive changes happen consequently and Pran begins acting like a total medication. This is the quintessence of yog science and of immaculate wellbeing; this is the premise of a solid, prosperous and touchy existence of an individual and even of anation. The data of 20 understudies is gathered through MCQ test and questionnaire to check memory improvement and concentration. The multi week training program (Pranayama) was granted to chosen students. After that the data was examined with the assistance of t-test (pretest&posttest) to discover the significance distinction. The dimensions of significance pick was 0.05, with the organized estimation of 2.09.

CONCLUSION

We reason that Pranayama improves concentration of the students and upgrades the learning procedure and causes students to limit stress and improve scholarly execution. Pranayama is both practical and financially savvy and students can receive it in routine learning strategies.

Table No. 1

Showing the mean difference in pretest&posttest of data of college students

S/N	Category	Mean	Mean Difference
1	Pre test	3.0	4.8
2	Post Test	7.8	

Table No. 2

Showing the mean difference in pretest&posttest of data of college students

S/N	Category	Mean	Mean Difference
1	Pre test	3.0	4.8
2	Post Test	7.8	

Table No. 03

Showing the performance of college students in MCQ test

S/N	Category	Mean	S.D.	Mean Difference	Standard Error	“t” Ratio
1	Pre test	3.0	0.25	4.8	0.04	4.37

Table No. 04

Questionnaire analysis on the basis of 5 point Likert scale

Question No.	No. of values	Median	Mean	Standard Deviation	Standard Error	Kruskal Wallis test statistics p<0.0001
1	20	5	4.5	0.5	0.07	
2	20	5	5	3	0.06	
3	20	4	4.6	0.4	0.08	
4	20	4	2	9	0.1	
5	20	4	4.1	0.6	0.09	
6	20	4	8	2	0.09	
7	20	4	4	0.7	0.06	
8	20	4	0	6	0.1	
9	20	4	4	0.6	0.1	
10	20	4	3	6	0.08	
11	20	4	4.1	0.7	0.1	
12	20	4	5	3	0.08	
13	20	4	4.4	0.5	0.06	

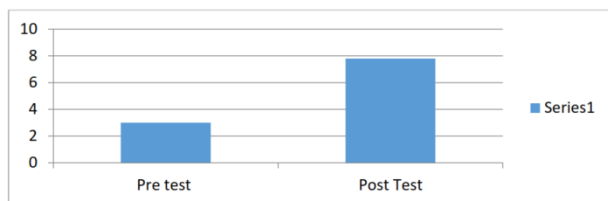
Table -05

Feedback of student perception on questionnaire

Question No.	Questions	SA%	A %	UD %	DA %	SDA %
1	The clear idea about Pranayama is given to me.	59	42	2	0	0
2	Pranayama is easy to perform.	62	38	0	0	0
3	Pranayama increases concentration during lecture.	28	68	3	0	0
4	Pranayama is helpful in attaining the subject's knowledge.	23	60	12	5	0
5	Learning process increases with the Pranayama	20	67	12	2	0
6	Pranayama shows positive effect on memorization	32	62	5	3	0
7	Pranayama induces feeling of peace	43	57	0	0	0
8	Pranayama helps to remove mental tension and worries	37	52	10	2	0
9	You feel relaxed after lecture	20	60	13	7	0
10	Students are interested to perform Pranayama before the start of Lecture	38	55	5	2	0
11	30 minute time is sufficient for performing Pranayama	37	52	3	8	0
12	Time given to complete the feedback is adequate	18	70	2	10	0
13	It is possible to perform Pranayama at home.	72	28	0	0	0

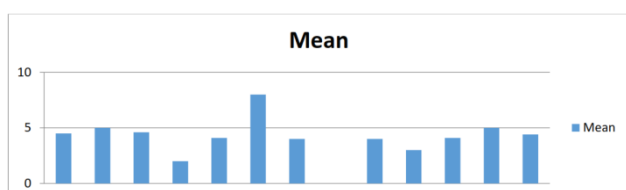
Graph No. 01

Showing the comparison of mean difference of data in pretest and posttest of college students



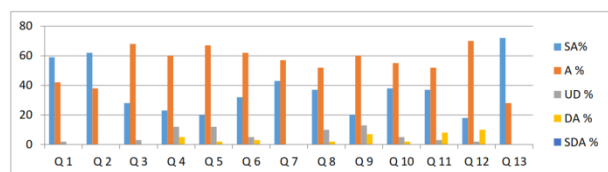
Graph No. 02

Relationship between questions and mean score



Graph -03

Feedback of student perception on questionnaire



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