

International Online Physical Education & Sports Research Journal

# Academic Sports Scholars

ISSN NO : 2277-3665

Impact Factor : 2.9052(UIF) [Yr.2015]



## **Academic Sports Scholars**

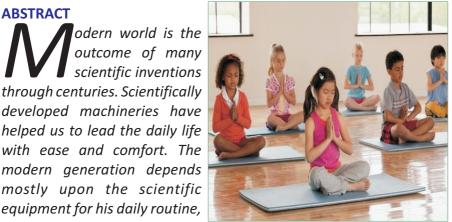


## **EVALUATION ON EFFECT OF YOGA ON PERFORMANCE** MEASURE IN SCHOOL CHILDREN: A PERFORMANCE MEASURE

### Dr. Lokesh<sup>1</sup> and Dr. Ragavendra<sup>2</sup>

<sup>1</sup>Research Scholar, Department of Physical Education, Shri Jagdish Prasad Jhabarmal, Tibrewala University, Jhunjhunu. Rajasthan. <sup>2</sup>Research Guide ,Senior Scientist Clinical Research , Head CAM Programme (H.G.C. Hospital B'lore)& Department of Physical Education Shri Jagdish Prasad Jhabarmal Tibrewala ,University, Jhunjhunu, Rajasthan.

**ABSTRACT** odern world is the outcome of many scientific inventions through centuries. Scientifically developed machineries have helped us to lead the daily life with ease and comfort. The modern generation depends



involving his mental powers to have a comfortable life, resulting in fall and deterioration in, physical health and cognitive health. students who has low academic achievement suffer from behavior problem including mood swing, emotional distress peers pressure and social adjustment students

requires stretching and then relaxing of muscle groups, joints for the relaxation of mind and to perform their regular daily physical activity and also to perform well in school . Physical activity and yogic activity produces relaxation to physical body and in return improves memory capacity and enhances physical performance to lead their daily student activity.

**Purpose of the study:** the purpose of the study is to assess how yogic activity enhances the memory of pupils.

**Methodology:** for the purpose of the study Physical activity performance was assigned for the age group of 13-16 years and the students were randomly picked from various schools of different taluks from Karnataka. Students were divided into two equal groups, Experimental and another Control Group. For a period of 4 months regular yogic activity for 1 hour for 5 days a week was assigned to control group and load was gradually increased . Yogic activity like, Asana, Pranayam, Meditation, and Relaxation were trained during 4 months period. Physical activity was not assigned to Control Group.

Pre-test was taken before the training and post test after four months to assess the performance in school P.G.I.Memeory scale by Dwarka and Wig was used to assess the memory was Appropriate Statistics method will be used and conclusion will be drawn in full paper.

**KEYWORDS**: Performance Measure, academic achievement, daily physical activity.

#### **INTRODUCTION**

Modern world is the outcome of many scientific inventions through centuries. Scientifically developed machineries have helped us to lead the daily life with ease and comfort. The modern generation depends mostly upon the scientific equipment for his daily routine, involving his mental powers to have a comfortable life, resulting in fall and deterioration in, physical health and cognitive health. students who has low academic achievement suffer from behavior problem including mood swing, emotional distress peers pressure and social adjustment students requires stretching and then relaxing of muscle groups, joints for the relaxation of mind and to perform their regular daily physical activity and also to perform well in school . Physical activity and yogic activity produces relaxation to physical body and in return improves memory capacity and enhances physical performance to lead their daily student activity.

Yoga is an important part of physical training and mental training and is a way of life, an art of righteous living or an integrated system for the benefit of the body, mind and inner spirit. Yoga is a science that consists of ancient theories, observations and Principles about the body and mind connection which is now being proved by modern medicine. The benefits of yoga are grouped into three categories such as physiological, psychological, biochemical. Yoga can help to solve the problems of any receptive individual, whether those problems are of a physical, physiological and mental. Yoga is a highly developed disciplined system of physical exercise that offers many benefits like physical, social, psychological and also spiritual benefit for the students. Yoga has made accessible as a set of powerful techniques for improving physical performance, academic performance, intelligence and memory for school children. Yoga is a very effective stress reduction and relaxation tool which helps in enhancement of school performance, which is one of the important performance measures for school children.

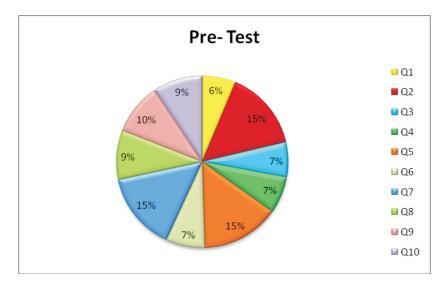
Yoga practice also draws attention towards breathing, which produces a meditative and soothing state of mind which enhances the concentration for school children. The Yoga practice on any regular basis helps in enhancing the range of motion concentration of students. Perfect concentration for three hours daily will have tremendous psychic power and student will have a strong will-power. Yoga is a system of physical exercises or postures called Asana. These Asana build strength, flexibility and confidence. Yoga is also about breathing called pranayama, which helps calm and refresh the body and mind. It Strengthens the Mind-Body Connection .Yoga helps kids achieve a sound mind in a sound body by exercising the physical body and calming the mental spirit.

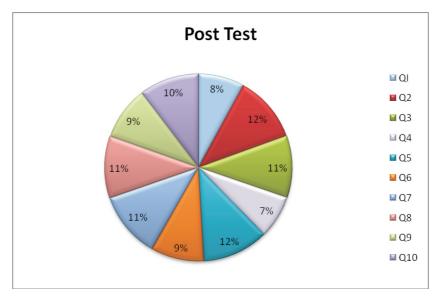
**Purpose of the study:** the purpose of the study is to assess how yogic activity enhances the memory of pupils.

**Methodology:** for the purpose of the study Physical activity performance was assigned for the age group of 13-16 years and the students were randomly picked from various schools of different taluks from Karnataka. Students were divided into two equal groups, Experimental and another Control Group. For a period of 4 months regular yogic activity for 1 hour for 5 days a week was assigned to

control group and load was gradually increased .Yogic activity like, Asana, Pranayam, Meditation, and Relaxation were trained during 4 months period. Physical activity was not assigned to Control Group. Pre-test was taken before the training and post test after four months. to assess the performance in school P.G.I.Memeory scale by Dwarka and Wig was used to assess the memory was Appropriate Statistics method will be used and conclusion will be drawn in full paper.

GRAPH: MEMORY SCALE:





#### Memory Scale Pre & Post Test:

The data on memory scale before 4 months of physical activity training and four months of training i.e. pre and post test are as shown above

Variable	TEST	Percentage of pre and post test	Percentage of improvement after post test	Interpretation of overall results in percentile	
1.Remote memory	Pre Test	41%	24%	Moderate memory	40%-60%
	Post Test	65%	24/0	A verage memory	60%-80%
2.Recent memory	Pre Test	98.93%	0.47%	Excellent memory	80-100
	Post Test	99.40%	0.47/0	Excellent memory	80-100
3.Mental balance	Pre Test	43.30%	48.85%	Moderate memory	40%-60%
	Post Test	92.15%	40.0370	Excellent memory	80-100
4. Attention concentration	Pre Test	45.48%	17.83%	Moderate memory	40%-60
	Post Test	63.31%	17.0370	A verage memory	60%-80%
5.Delayed memory	Pre Test	97.10%	1.80%	Excellent memory	80-100
	Post Test	98.90%	1.80%	Excellent memory	80-100
6.Immediate memory	Pre Test	48.17%	30.72%	Moderate memory	40%-60%
	Post Test	78.89%	30.7270	A verage memory	60-80
7.Retention for similar pairs	Pre Test	97.33%	1.40%	Excellent memory	80-100
	Post Test	98.73%	1.4070	Excellent memory	80-100
8.Retention for dissimilar pairs	Pre Test	61.42%	20.780/	A verage memory	60-80
	Post Test	92.20%	30.78%	Excellent memory	80-100
9.Visual retention	Pre Test	64.1	15.49%	A verage memory	60-80
	Post Test	79.59	13.4770	A verage memory	60-80
10.recognition	Pre Test	61.53	27.44%	A verage memory	60-80
	Post Test	88.97	27.77/0	Excellent memory	80-100

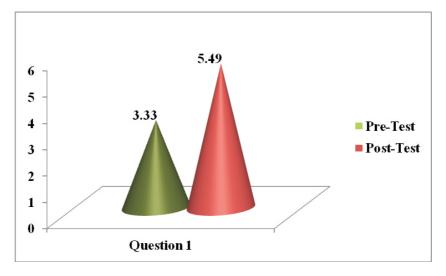
#### **CONCLUSION OF MEMORY SCALE:**

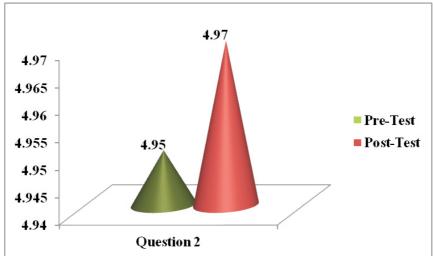
**1.Remote Memory:** The above table shows that Remote Memory which was moderate memory i.e. 41% in pre test has increased to average memory in post test i.e. 65% the overall improvement of remote memory is 24%. therefore, it is statically proven that yoga training has the Remote memory.

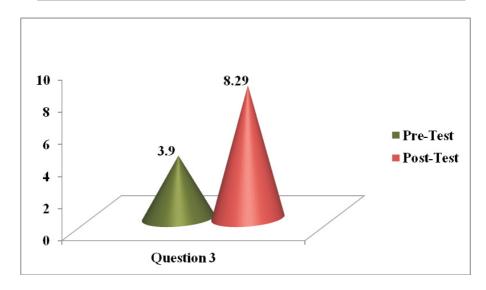
**2.RECENT MEMORY**: The above table shows that Recent Memory which was Excellent memory i.e. 98.93% in pre test has increased to Excellent memory in post test i.e. 99.40% the overall improvement of recent memory is 0.47%. therefore, it is statically proven that yoga training has the Recent memory.

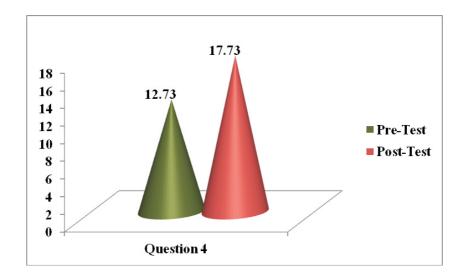
- **3.MENTAL BALANCE:** The above table shows that Mental balance which was moderate memory i.e. 43.30% in pre test has increased to Excellent memory in post test i.e. 92.15% the overall improvement of Mental balance is 48.85%. therefore, it is statically proven that yoga training has the Mental Balance.
- **4.ATTENTION AND CONCENTRATION:** The above table shows that Attention and concentration which was moderate memory i.e. 45.48% in pre test has increased to average memory in post test i.e. 63.31% the overall improvement of Attention and concentration is 17.83%. therefore, it is statically proven that yoga training has the Attention and concentration.
- **5.DELAY RECALL:** The above table shows that Delay Recall which was Excellent memory i.e. 97.10% in pre test has increased to Excellent memory in post test i.e. 98.80% the overall improvement of delay recall is 1.8%. therefore, it is statically proven that yoga training has the Delay recall.
- **6. IMMEDIATE RECALL:** The above table shows that immediate recall which was moderate memory i.e. 48.17% in pre test has increased to average memory in post test i.e. 78.89% the overall improvement of immediate recall is 30.72%. therefore, it is statically proven that yoga training has the immediate recall.
- **7. RETENTION FOR SIMILAR PAIR:** The above table shows that Retention for similar pair which was Excellent memory 97.33% in pre test has increased to Excellent memory in post test i.e. 98.73% the overall improvement of Retention for similar pair is 1.4%%. therefore, it is statically proven that yoga training has the Retention for similar pair.
- **8. RETENTION FOR DIS- SIMILAR PAIR:** The above table shows that Retention for Dissimilar pair which was Average memory i.e. 61.42% in pre test has increased to Excellent memory in post test i.e. 92.20% the overall improvement of Retention for Dissimilar pair is 30.78%. therefore, it is statically proven that yoga training has the Retention for Dissimilar pair.
- **9.VISUAL RETENTION:** The above table shows that Visual Retention which was Average memory i.e. 64.10% in pre test has increased to Average memory in post test i.e. 79.59% the overall improvement of Visual Retention is 15.49%. therefore, it is statically proven that yoga training has the Visual Retention.
- **10.RECOGNITION:** The above table shows that Recognition which was Average memory i.e. 61.53% in pre test has increased to Excellent memory in post test i.e. 88.97% the overall improvement of Recognition is 27.44%. therefore, it is statically proven that yoga training has the Recognition.

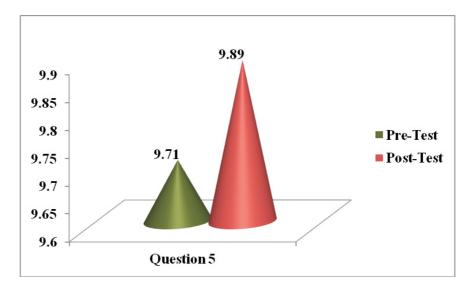
## **Graphs Showing Pre & Post-Test:**

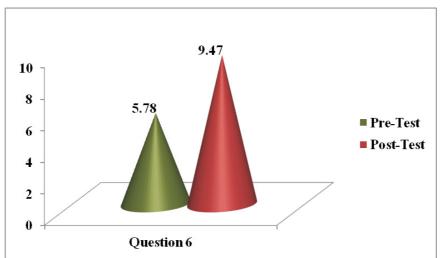


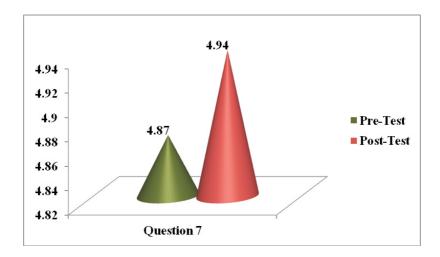


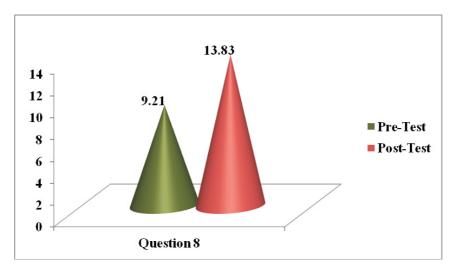


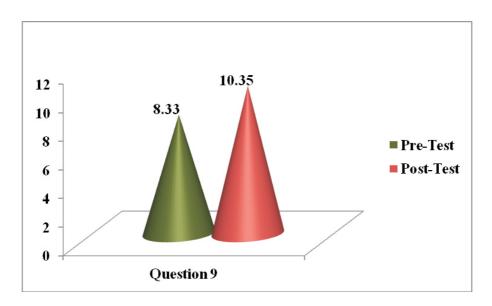


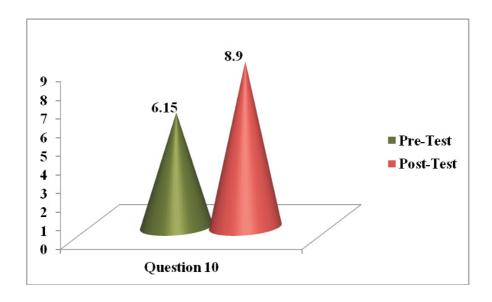












Groups		N	Total	Mean	SD	T-Test
Q1	Pre-Test	300	999	3.33	0.83	1.008
	Post-Test	300	1646	5.49	0.72	
Q2	Pre-Test	300	1484	4.95	0.28	0.2437
	Post-Test	300	1491	4.97	0.21	
Q3	Pre-Test	300	1169	3.90	1.30	1.287
	Post-Test	300	2488	8.29	0.83	
Q4	Pre-Test	300	3820	12.73	2.01	4.0486
	Post-Test	300	5318	17.73	1.10	
Q5	Pre-Test	300	2913	9.71	0.61	1.556
	Post-Test	300	2967	9.89	0.38	
Q6	Pre-Test	300	1734	5.78	1.12	1.1099
	Post-Test	300	2840	9.47	1.16	
Q7	Pre-Test	300	1460	4.87	0.34	0.0039
	Post-Test	300	1481	4.94	0.24	
Q8	Pre-Test	300	2764	9.21	0.76	7.7631
	Post-Test	300	4149	13.83	1.12	
Q9	Pre-Test	300	2500	8.33	0.68	1.1321
	Post-Test	300	3104	10.35	0.02	
Q10	Pre-Test	300	1846	6.15	0.95	3.4835
	Post-Test	300	2669	8.90	0.86	

**1.remote memory**: In experimental group the statics remote memory mean score of pre-test is 3.33, which has increased to mean score of 5.49 in post-test. It is also evident from the above table that the obtained t-value 1.0089 is less than the critical value 1.645 even at 0.05 level of significance.

The mean different between pre and post test score of subject on Remote Memory was found to be No significant. It is interred that the Remote Memory in post test is enhanced very slightly when compared to mean score through yoga training. therefore, it is statically proven that yoga training has no significantly helping in enhancement the Remote memory.

**2.RECENT MEMORY** :In experimental group the statics RECENT MEMORY mean score of pre-test is 4.95 which has increased to mean score of 4.97 in post-test. It is also evident from the above table that the obtained t-value 0.2437 is less than the critical value 1.645 even at 0.05 level of significance. The mean different between pre and post test score of subject on RECENT MEMORY was found to be No significant. It is interred that the RECENT MEMORY in post test is enhanced very slightly when compared to mean score in pre test . therefore, it is statically proven that yoga training is no significantly helping in enhancement the RECENT MEMORY .

**3.MENTAL BALANCE:** In experimental group the statics MENTAL BALANCE mean score of pre-test is 3.90, which has increased to mean score of 8.29 in post-test

It is also evident from the above table that the obtained t-value 1.287 is less than the critical value 1.645 even at 0.05 level of significance. The mean different between pre and post test score of subject on Mental Balance was found to be significant AT 0.05 LEVEL .It is interred that the MENTAL BALANCE in post test is enhanced very slightly when compared to mean score than pre test . therefore, it is statically proven that yoga training has significantly helping in enhancement the MENTAL BALANCE.

**4.ATTENTION AND CONCENTRATION :** In experimental group the statics attention and concentration mean score of 12.73 which has increased to mean score of 17.73 in post-test.

It is also evident from the above table that the obtained t-value 4.0486 is more than the critical value 1.645 even at 0.05 level of significance. The mean different between pre and post test score of subject on attention and concentration was found to be significant AT 0.05 LEVEL .It is interred that the attention and concentration in post test is enhanced very slightly when compared to mean score through pre test . therefore, it is statically proven that yoga training is significantly helping in enhancement the attention and concentration .

#### **5.DELAY RECALL:**

In experimental group the statics delay recall mean score of pre-test is 9.71 which has increased to mean score of 9.89 in post-test

It is also evident from the above table that the obtained t-value 1.556 is less than the critical value 1.645 even at 0.05 level of significance. The mean different between pre and post test score of subject on delay recall was found to be no significant AT 0.05 LEVEL. It is interred that the delay recall in post test is enhanced very slightly when compared to mean score of pre test, therefore, it is statically proven that yoga training is significantly helping in enhancement the delay recall but not significant in this study.

#### **6. IMMEDIATE RECALL:**

In experimental group the statics immediate recall mean score of pre-test is 5.78 which has increased to mean score of 9.47 in post-test

It is also evident from the above table that the obtained t-value 1.1099 is less than the critical value 1.645 even at 0.05 level of significance. The mean different between pre and post test score of subject on immediate recall was found to be no significant AT 0.05 LEVEL .It is interred that the

immediate recall in post test is enhanced very slightly when compared to mean score of pre test through yoga training . therefore, it is statically proven that yoga training is significantly helping in enhancement the immediate recall but it is not significant in this study.

#### 7. RETENTION FOR SIMILAR PAIR:

In experimental group the statics retention for similar pair mean score of pre-test is 4.87 which has increased to mean score of 4.94in post-test

It is also evident from the above table that the obtained t-value 0.0039 is less than the critical value 1.645 even at 0.05 level of significance. The mean different between pre and post test score of subject on retention for similar pair was found to be no significant AT 0.05 LEVEL. It is interred that the retention for similar pair in post test is enhanced very slightly when compared to mean score of pre test through yoga training. therefore, it is statically proven that yoga training is significantly helping in enhancement the retention for similar pair. but not significant according to this study.

#### 8. RETENTION FOR DIS-SIMILAR PAIR:

In experimental group the statics retention for dissimilar pair mean score of pre-test is 9.21which has increased to mean score of 13.83 in post-test

It is also evident from the above table that the obtained t-value 7.76 is less than the critical value 1.645 even at 0.05 level of significance. The mean different between pre and post test score of subject on retention for dissimilar pair was found there is significant AT 0.05 LEVEL .It is interred that the retention for dissimilar pair in post test is enhanced very slightly when compared to mean score of pre test through yoga training . therefore, it is statically proven that yoga training is significantly helping in enhancement the retention for dissimilar pair but it is significant according to the study.

#### **9.VISUAL RETENTION:**

In experimental group the statics visual retention mean score of pre-test is 8.33 which has increased to mean score of 10.34in post-test

It is also evident from the above table that the obtained t-value 1.1321 is less than the critical value 1.645 even at 0.05 level of significance. The mean different between pre and post test score of subject on visual retention was found to be no significant AT 0.05 LEVEL .It is interred that the visual retention in post test is enhanced very slightly when compared to mean score than pre test through yoga training . therefore, it is statically proven that yoga training is significantly helping in enhancement the visual retention .

#### **10.RECOGNITION:**

In experimental group the statics recognition mean score of pre-test is 6.15 which has increased to mean score of 8.90 in post-test

It is also evident from the above table that the obtained t-value 3.48 is less than the critical value 1.645 even at 0.05 level of significance. The mean different between pre and post test score of subject on recognition was found to be significant AT 0.05 LEVEL. It is interred that the recognition in post test is enhanced very slightly when compared to mean score pretest through yoga training. therefore, it is statically proven that yoga training is significantly helping in enhancement the recognition but it is significant according to the study.

#### **REFERENCE:**

- 1.Emerson cs, mollet GA, Harrison DA. Anxious-depression in boys: an evaluation of executive functioning. Arch clinNeuropsychot 2005:20:539-546(pubmed:15896566)
- 2.Mathew k coghill D,RHODESS NEUROPSYCHOLOGY FUNCTIONING IN DEPRESSED ADOLESENCE GIRLS .J AFFECT DISORDER 2008: 111:113-118[PUBMED:18367251]
- 3.VINCENZI H. DEPRESSION AND READING ABILITY IN SIXTH GRADE CHILDREN .J SCH PSUCHOLOGY : 1987;25: 155-160
- 4.OSBERN M, MEADOR P, THE MEMORY PERFORMANCE OF SELECTED DEPRESSED AND NON DEPRESSED 9-11 YEARS OLD MALE CHILDREN . BEHAVIOUR DISORDER 1990; 16:32-38
- 5.TRAVIS F, TECCE JJ: THOMAS KM: STRUCTURAL AND FUNCTIONAL BRAIN DEVELOPMENT AND ITS RELATION TO COGNATIVE DEVELOPMENT. BIOL PSYCHOLOGY 2000,54(1-3):241-257