



Research Paper-Education

EFFECT OF YOGA EXERCISES ON ACHIEVEMENT, MEMORY AND REASONING ABILITY

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ABSTRACT

Now, we are living in the world of 21st century which is known as the world of 'Mental Stress' in these circumstances, knowledge amplifies day by day. There is a Knowledge explosion in the world, hence each and every person tries to get this Knowledge by new & most recent Medias & they also use it. In this direction there is a qualitative growing up in the person for in receipt of Knowledge & its use by appreciative. In the same way, we notice the qualitative addition in the Educational organization, teachers, & the students, which are going to get Knowledge. In these circumstances, teachers & students feel a perplexity. So there is a question against us that, this growth in the education organization, teachers & in the students will have no proper direction for the Academic achievement of students. If we get an affirmative answer of this question, we must do the fundamental change in the teaching learning process of Education. In the present day, each person including the students and the teachers face anxiety, frustration, etc. Due to these factors, the students cannot keep much interest in their study, academic activity & their performance in the entire exam. Consequently, in this way it is very essential for the students to keep their eyes in their study & academic activity. For the outcome of this predicament, 'YOGA' is the recent and excellent way. That is why; the investigator has found a research gap, to know the Effect of Yoga Exercises on Academic Achievement, Short-term memory and Verbal Reasoning ability.

Key words: *Yoga, Academic Achievement, Reasoning ability, Short-Term Memory, Effect*

INTRODUCTION

The more technical linguistic sense of the term "yoga," describing a system of meditation or contemplation with the aim of the cessation of mental activity and the attaining of a "supreme state" arises with early Buddhism. In Hindu scripture, this sense of the term "yoga" first appears in the middle Upanishads, such as the Katha Upanishad. Shvetashvatara Upanishad mentions, "When earth, water, fire, air and akasa arise, when the five attributes of the elements, mentioned in the books on yoga, become manifest then the yogi's body becomes purified by the fire of yoga and he is free from illness, old age and death." (Verse 2.12) More importantly in the following verse it mentions, the "precursors of perfection in yoga", namely lightness and healthiness of the body, absence of desire, clear complexion, pleasantness of voice, sweet odour and slight excretions.

In Chapter 2 of the Bhagavad Gita, Krishna explains to Arjuna about the essence of Yoga as practiced in daily lives:

योगस्थः कुरु कर्माणि सङ्गं त्यक्त्वा धनंजय ।

सिद्ध्यसिद्ध्योः समो भूत्वा समत्वं योग उच्यते ॥

*(yoga-sthah kuru karmani sanyugam tyaktva dhananjay
siddhy-asiddhyoh samo bhutva samatvam yoga ucyate)*

- Bhagavad Gita

Yoga is a physical, mental, and spiritual discipline, originating in ancient India. The goal of yoga, or of the person practicing yoga, is the attainment of a state of perfect spiritual insight and tranquility while meditating on the Supersoul. The word is associated with meditative practices in Hinduism, Jainism, and Buddhism. Within Hindu philosophy, the word *yoga* is used to refer to one of the six orthodox (Astika) schools of Hindu philosophy. (In Sanskrit philosophical literature, "Astika" means "one who believes in the authority of the Vedas" or "one who believes in life after death".)

In the view of this school, the highest attainment does not reveal the experienced diversity of the world to be illusion. The everyday world is real. Furthermore, the highest attainment is the event of one of many individual selves discovering it; there is no single universal self shared by all persons.

SIGNIFICANCE OF THE STUDY

Today Frustration, Anxiety, Mental Stress etc. Mental related diseases are increasing in our society. Due to these diseases many persons including the students feels Isolation, Anger, Confusion, Depression, Mood disorders, Attention deficit-hyperactive disorder, Obsessive disorder, Adjustment disorder etc. Under the effect of on top of Mental related disorders the level of students' Exam's Achievements are much low.

The training of 'YOGA' will give the proper direction for the betterment in Exam's achievements & much give positive effect for living peaceful life, the violent competition, peace less & rude tries for the betterment of this circumstances & for going on the top.

This study will provide something to the commerce students like as a proper way, keeping meditation in teaching learning process, & Adjustment for Healthy, Clam, Fertile & Qualitative Life. It will also helpful to solve study related problems.

The investigator will also know about the difference between the achievement of boys and girls students through this study. The investigator will also know how the effect of 'YOGA' touch the practice of Education & we will identify furthermore separate that which subjects provide the best effect as a result of 'YOGA'.

OBJECTIVES OF THE STUDY

The objectives of this study are as under.

- (1) To study the effect of Yoga on the Academic Achievement of the student of Commerce stream.
- (2) To study the effect of Yoga on the Verbal Reasoning ability of the student of Commerce stream.
- (3) To study the effect of Yoga on the Short-Term Memory (STM) of the student of Commerce stream.
- (4) To study the effect of Yoga on the Academic achievement, Verbal Reasoning ability & Short-Term Memory (STM) of the student of Commerce stream in relation to Sex.

HYPOTHESES OF THE STUDY

The following Major hypotheses were formulated for the present study.

- (1) There will be no significant difference between Control group & Experimental group on the Mean score of Academic achievement post test.
- (2) There will be no significant difference between Control group & Experimental group on the Mean score of Verbal Reasoning ability post test.

- (3) There will be no significant difference between Control group & Experimental group on the Mean score of Short-Term Memory (STM) post test.
- (4) There will be no significant difference between Control group & Experimental group on the Mean score of Academic achievement, Verbal Reasoning ability, & Short-Term Memory (STM) post test in relation to their Sex.

DELIMITATIONS OF THE STUDY

The delimitations of the current study are as follows.

- (1) The study was delimited to Gujarati medium School students only.
- (2) The study was delimited to Mehsana Districts' Higher Secondary Schools' students.
- (3) The study was delimited to students of standard 11th commerce.
- (4) The study was also delimited to the student studying during 2011-12 academic year only.

LIMITATIONS OF THE STUDY

The limitations of the current study are as follows.

- (1) In this present study, the findings were depended upon the sample of **80** students of standard 11th commerce.

VARIABLES OF THE STUDY

Following Variables will be taken for the present study.

No.	Variable	Type of Variable
1	Yoga	Independent
2	Academic Achievement	Dependant
3	Verbal Reasoning ability	Dependant
4	Short-term Memory	Dependant
5	Sex	Control

POPULATION

The Students who are studying in the Higher Secondary school in the Section of Commerce Streams of Mehsana District in the year of 2011-12 were the population of present study.

SAMPLE AND TECHNIQUE OF SAMPLE SELECTION

The researcher took the list of Mehsana Districts' Higher Secondary schools. Among this list, two schools were selected purposively. After selection of schools, the researcher used cluster sample selection technique for selection of whole class of 11th commerce for equal group distribution. The researcher used the "complete experimental simple equivalent group pre test-post test experiment design" and gave Experiment force on the students of Experimental group.

METHOD OF THE STUDY

To observe the effect of Yoga exercises on Academic Achievement, Verbal Reasoning ability and Short-Term Memory (STM) of the students of commerce stream, thus this entire study is depended on Experimental Method. Among this Experimental Method, a "complete experimental simple equivalent group pre test-post test experiment design" was applied for data assortments.

CONSTRUCTION OF TOOLS

The entire study is based on three tools (i.e. (1) Academic Achievement test (2) Verbal Reasoning ability test and (3) Short Term Memory (STM) test). The selection and procedure of the tool construction are as under.

- **Academic achievement test:**

The researcher has made 50 marks and 1.30 hours objective type Academic achievement test for 11th commerce subject with the help of commerce teachers. This test helps for to observe the effect of Yoga exercises on Academic achievement of 11th commerce subject students.

- **Verbal Reasoning ability test:**

Among above mentioned tools; Verbal Reasoning ability test was readymade and standardized by Dr.D.S.Patel for the students belongs to the students of 11th and 12th Arts, Commerce, and Science stream. This readymade tool was taken by the researcher.

- **Short Term Memory (STM) test:**

Planning of the test :

The purpose of this test was to examine the effect of Yoga exercises on Short -Term Memory of the students of 11th commerce standard. Therefore, the researcher prepared the list of Numbers, Pictures, Things, Verbal and Non-Verbal Questions, Objectives, and Short answer Questions and Short-term Memory based activities with the help of experts of the background (field) of Yoga and Psychology for preparing this STM test. In this way, the researcher primarily shaped the STM test.

Preliminary test construction :

To observe the effect of Yoga exercises on Short term memory of 11th commerce standard students; the researcher has constructed self made opening STM test, by the hold up of experts. This primarily test contains eight Short term Memory based activities, fifty minutes and fifty marks for measurement of students STM for pre-primary base.

Pre Piloting testing :

The researcher has applied the primarily test to the small group of 30 students of 11th commerce standard of Shree Sarvodaya High School, Ambasan. In this way, the researcher completed Pre-Piloting testing of the STM test and the researcher had done necessary changes, which were found out in Pre-Piloting testing of the STM test.

Expert's Opinion :

After the Pre-Primary try out, the researcher has made necessary changes in the STM test. Then after it was sent for expert's opinion via post, courier, and hand to hand.

Correction of the test :

After receiving the STM test by experts, the researcher has made the changes and correction, which were suggested by experts and my research Guide. Thus, the tool was ready for its Piloting testing.

Piloting testing :

The researcher applied the STM test for Piloting study on the 200 students sample among following schools of Mehsana and Mehsana District.

Sr.No.	Name of the School	Sample
01	Shri S.V.Shah Vidhyavihar, Mehsana.	50
02	Shri Nandasan Higher Secondary School. Di. Mehsana.	100 (class A & B)
03	Shri M. G. Chaudhary Kishanbharti Higher Secondary Vidyalaya, Mevad.Di.Mehsana.	50

Item Analysis:

After scoring, the answer sheets were sorted out in descending order of the score of respondents. Then top 27 % of Upper group students answer sheets and bottom 27 % of Lower group students answer sheets were selected for Item analysis. In this way, 54 students of upper group and 54 students of lower group were sorted out among total 200 students.

PROCEDURE OF EXPERIMENT AND DATA COLLECTION

Sample Selection:

The researcher took the list of Mehsana District's Higher Secondary schools. Among this list, two schools were selected purposively. After selection of schools, the researcher has used cluster sample selection technique for selection of whole class of 11th commerce for equal group distribution.

Formation of Equal Group Distribution:

For the formation of equal group distribution, the research practically collected the score for equal group distribution through the readymade memory sharpness test, which contains the small picture of 18 different types of things on each chart. In this particular manner, the researcher collected the score of the test of 46 students of Shree H. B. Saraswati Vidyalaya, Vadasma (rural) and 44 students of Shree M.B.Patel High School; Mehsana (urban). After collecting the score, the researcher has arranged it into descending order for both school and prepared two equal groups (i.e. control group and experimental group) on the base of memory which is the dependant variable of this study.

Application and collection of Pre-tests scores:

After equal group distribution, the researcher applied three pre-tests one by one (i.e. Academic Achievement test, Verbal Reasoning ability test ,Short Term Memory test) and collected the preliminary (initial) level score of three pre-tests.

Preparation and Application of Experimental force:

To examine the effect of Yoga exercises on the three independent variable of this study; the researcher has prepared the one-hour Yoga exercises programme (the independent variable) for 21 days through the guidance and suggestions of Yoga experts. After collection of the score of three pre-tests, the researcher has applied the Experimental force on the students of Experimental group for both schools.

Application and collection of Post-tests scores:

After application of independent variable of Yoga exercises programme on experimental group, the researcher has passed one-day transition period before application of post-tests. Later then, the researcher applied post-tests and collected its final score.

USE OF THE STATISTICAL TECHNIQUES

The following Statistical techniques were used for the present study.

An Experimental Method was used to know the effect of Independent Variable for this study. In this Method, complete experimental simple equivalent group pre test-post test experiment design was introduced for entire study. With the help of both groups' pre and post test's score, t-test was used for calculation and testing of the hypothesis; with the help of computerized MS-Excel software.

TESTING OF HYPOTHESIS

Current study was carried out with forty-two Null Hypothesis, which are shown in the following table.

Table of Hypothesis testing

H₀	Hypothesis	t-value	df	Significant t level 0.05 & 0.01	H₀ is Rejected or Accepted
For Rural School					
H₀₁	There is no significant difference of mean score between pre test and post test of Academic Achievement of the rural school's students of control group.	0.17	38	Not Significant At both level	H ₀₁ is Accepted at both level
H₀₂	There is no significant difference of mean score between pre test and post test of Academic Achievement of the rural school's students of experiment group.	4.85	38	Significant At both level	H ₀₂ is Rejected at both level
H₀₃	There is no significant difference of mean score between control group and experiment group of Academic Achievement pre test of the rural school's students.	1.38	38	Not Significant At both level	H ₀₃ is Accepted at both level
H₀₄	There is no significant difference of mean score between control group and experiment group of Academic Achievement post test of the rural school's students.	5.16	38	Significant At both level	H ₀₄ is Rejected at both level

H₀	Hypothesis	t-value	d_f	Significant t level 0.05 & 0.01	H₀ is Rejected or Accepted
H₀₅	There is no significant difference of mean score between pre test and post test of Verbal Reasoning ability of the rural school's students of control group.	0.05	38	Not Significant At both level	H ₀₅ is Accepted at both level
H₀₆	There is no significant difference of mean score between pre test and post test of Verbal Reasoning ability of the rural school's students of experiment group.	2.71	38	Significant At both level	H ₀₆ is Rejected at both level
H₀₇	There is no significant difference of mean score between control group and experiment group of Verbal Reasoning ability pre test of the rural school's students.	0.77	38	Not Significant At both level	H ₀₇ is Accepted at both level
H₀₈	There is no significant difference of mean score between control group and experiment group of Verbal Reasoning ability post test of the rural school's students.	3.69	38	Significant At both level	H ₀₈ is Rejected at both level
H₀₉	There is no significant difference of mean score between pre test and post test of Short term Memory of the rural school's students of control group.	0.08	38	Not Significant At both level	H ₀₉ is Accepted at both level
H₀₁₀	There is no significant difference of mean score between pre test and post test of Short term Memory of the rural school's students of experiment group.	3.34	38	Significant At both level	H ₀₁₀ is Rejected at both level
H₀₁₁	There is no significant difference of mean score between control group and experiment group of Short term Memory pre test of the rural school's students.	0.91	38	Not Significant At both level	H ₀₁₁ is Accepted at both level
H₀₁₂	There is no significant difference of mean score between control group and experiment group of Short term Memory post test of the rural school's students.	4.54	38	Significant At both level	H ₀₁₂ is Rejected at both level
For Urban School					
H₀₁₃	There is no significant difference of mean score between pre test and post test of Academic Achievement of the urban school's students of control group.	0.13	38	Not Significant At both level	H ₀₁₃ is Accepted at both level

H₀	Hypothesis	t-value	d_f	Significant t level 0.05 & 0.01	H₀ is Rejected or Accepted
H₀₁₄	There is no significant difference of mean score between pre test and post test of Academic Achievement of the urban school's students of experiment group.	4.02	38	Significant At both level	H ₀₁₄ is Rejected at both level
H₀₁₅	There is no significant difference of mean score between control group and experiment group of Academic Achievement pre test of the urban school's students.	0.12	38	Not Significant At both level	H ₀₁₅ is Accepted at both level
H₀₁₆	There is no significant difference of mean score between control group and experiment group of Academic Achievement post test of the urban school's students.	3.16	38	Significant At both level	H ₀₁₆ is Rejected at both level
H₀₁₇	There is no significant difference of mean score between pre test and post test of Verbal Reasoning ability of the urban school's students of control group.	0.11	38	Not Significant At both level	H ₀₁₇ is Accepted at both level
H₀₁₈	There is no significant difference of mean score between pre test and post test of Verbal Reasoning ability of the urban school's students of experiment group.	2.73	38	Significant At both level	H ₀₁₈ is Rejected at both level
H₀₁₉	There is no significant difference of mean score between control group and experiment group of Verbal Reasoning ability pre test of the urban school's students.	0.40	38	Not Significant At both level	H ₀₁₉ is Accepted at both level
H₀₂₀	There is no significant difference of mean score between control group and experiment group of Verbal Reasoning ability post test of the urban school's students.	3.05	38	Significant At both level	H ₀₂₀ is Rejected at both level
H₀₂₁	There is no significant difference of mean score between pre test and post test of Short term Memory of the urban school's students of control group.	0.26	38	Not Significant At both level	H ₀₂₁ is Accepted at both level
H₀₂₂	There is no significant difference of mean score between pre test and post test of Short term Memory of the urban school's students of experiment group.	3.73	38	Significant At both level	H ₀₂₂ is Rejected at both level

H₀	Hypothesis	t-value	df	Significant t level 0.05 & 0.01	H₀ is Rejected or Accepted
H₀₂₃	There is no significant difference of mean score between control group and experiment group of Short term Memory pre test of the urban school's students.	0.39	38	Not Significant At both level	H ₀₂₃ is Accepted at both level
H₀₂₄	There is no significant difference of mean score between control group and experiment group of Short term Memory post test of the urban school's students.	4.11	38	Significant At both level	H ₀₂₄ is Rejected at both level
Sex difference in Rural school					
H₀₂₅	There is no significant difference of mean score between boys of control group and girls of experiment group of the Academic Achievement post test of rural school's students.	5.36	18	Significant At both level	H ₀₂₅ is Rejected at both level
H₀₂₆	There is no significant difference of mean score between girls of control group and boys of experiment group of the Academic Achievement post test of rural school's students.	2.39	18	Significant At 0.05 level & Not Significant At 0.01 level	H ₀₂₆ is Rejected at 0.05 level & Accepted at 0.01 level
H₀₂₇	There is no significant difference of mean score between girls and boys of experiment group of the Academic Achievement post test of rural school's students.	0.65	18	Not Significant At both level	H ₀₂₇ is Accepted at both level
H₀₂₈	There is no significant difference of mean score between boys of control group and girls of experiment group of the Verbal Reasoning ability post test of rural school's students.	2.68	18	Significant At 0.05 level & Not Significant At 0.01 level	H ₀₂₈ is Rejected at 0.05 level & Accepted at 0.01 level
H₀₂₉	There is no significant difference of mean score between girls of control group and boys of experiment group of the Verbal Reasoning ability post test of rural school's students.	2.43	18	Significant At 0.05 level & Not Significant At 0.01 level	H ₀₂₉ is Rejected at 0.05 level & Accepted at 0.01 level

H₀	Hypothesis	t-value	d_f	Significant t level 0.05 & 0.01	H₀ is Rejected or Accepted
H₀₃₀	There is no significant difference of mean score between girls and boys of experiment group of the Verbal Reasoning ability post test of rural school's students.	0.63	18	Not Significant At both level	H₀₃₀ is Accepted at both level
H₀₃₁	There is no significant difference of mean score between boys of control group and girls of experiment group of the Short term Memory post test of rural school's students.	5.27	18	Significant At both level	H₀₃₁ is Rejected at both level
H₀₃₂	There is no significant difference of mean score between girls of control group and boys of experiment group of the Short term Memory post test of rural school's students.	1.79	18	Not Significant At both level	H₀₃₂ is Accepted at both level
H₀₃₃	There is no significant difference of mean score between girls and boys of experiment group of the Short term Memory post test of rural school's students.	1.04	18	Not Significant At both level	H₀₃₃ is Accepted at both level
Sex difference in Urban school					
H₀₃₄	There is no significant difference of mean score between boys of control group and girls of experiment group of the Academic Achievement post test of urban school's students.	3.45	18	Significant At both level	H₀₃₄ is Rejected at both level
H₀₃₅	There is no significant difference of mean score between girls of control group and boys of experiment group of the Academic Achievement post test of urban school's students.	1.06	18	Not Significant At both level	H₀₃₅ is Accepted at both level
H₀₃₆	There is no significant difference of mean score between girls and boys of experiment group of the Academic Achievement post test of urban school's students.	0.41	18	Not Significant At both level	H₀₃₆ is Accepted at both level
H₀₃₇	There is no significant difference of mean score between boys of control group and girls of experiment group of the Verbal Reasoning ability post test of urban school's students.	3.06	18	Significant At both level	H₀₃₇ is Rejected at both level

H₀	Hypothesis	t-value	df	Significant level 0.05 & 0.01	H₀ is Rejected or Accepted
H₀₃₈	There is no significant difference of mean score between girls of control group and boys of experiment group of the Verbal Reasoning ability post test of urban school's students.	1.44	18	Not Significant At both level	H ₀₃₈ is Accepted at both level
H₀₃₉	There is no significant difference of mean score between girls and boys of experiment group of the Verbal Reasoning ability post test of urban school's students.	0.55	18	Not Significant At both level	H ₀₃₉ is Accepted at both level
H₀₄₀	There is no significant difference of mean score between boys of control group and girls of experiment group of the Short term Memory post test of urban school's students.	3.69	18	Significant At both level	H ₀₄₀ is Rejected at both level
H₀₄₁	There is no significant difference of mean score between girls of control group and boys of experiment group of the Short term Memory post test of urban school's students.	2.09	18	Not Significant At both level	H ₀₄₁ is Accepted at both level
H₀₄₂	There is no significant difference of mean score between girls and boys of experiment group of the Short term Memory post test of urban school's students.	0.32	18	Not Significant At both level	H ₀₄₂ is Accepted at both level

MAJOR FINDINGS OF THE STUDY

The major findings of this present study are as follows.

About the effect of Yoga exercises on Academic Achievement of the students of Rural School:

- (1) The significant difference has been shown of mean score at 0.05 and 0.01 levels between pre test and post test of Academic Achievement of the rural school's students of experiment group. It is indicating that; the Yoga exercises improves the Achievement of the students.

- (2) The significant difference has been shown of mean score at 0.05 and 0.01 levels between control group and experiment group of Academic Achievement post test of the rural school's students. It is point out that; due to Yoga exercises on experimental group, the students are higher than the control group in Academic Achievement.

About the effect of Yoga exercises on reasoning ability of the students of Rural School:

- (3) The significant difference has been shown of mean score between pre test and post test of Verbal Reasoning ability of the rural school's students of experiment group. It is point out that; due to Yoga exercises on experimental group, the students are higher than pre test of Verbal Reasoning ability.
- (4) The significant difference has been shown of mean score between control group and experiment group of Verbal Reasoning ability post test of the rural school's students. It is indicating that; the Yoga exercises improve the Verbal Reasoning ability of the students.

About the effect of Yoga exercises on Short Term Memory of the students of Rural School:

- (5) The significant difference has been shown of mean score between pre test and post test of Short-term Memory of the rural school's students of experiment group. It is point out that; because of Yoga exercises on experimental group, the students are higher than pre test of Short term Memory.
- (6) The significant difference has been shown of mean score between control group and experiment group of Short-term Memory post test of the rural school's students. It is indicating that; the Yoga exercises improve the Short term Memory of the students.

About the effect of Yoga exercises on Academic Achievement of the students of Urban School:

- (7) The significant difference has been shown of mean score between pre test and post test of Academic Achievement of the urban school's students of experiment group. It is indicating that; the Yoga exercises improve the Achievement of the students.

- (8) The significant difference has been shown of mean score between control group and experiment group of Academic Achievement post test of the urban school's students. It is point out that; due to Yoga exercises on experimental group, the students are higher than the control group in Academic Achievement.

About the effect of Yoga exercises on Reasoning ability of the students of Urban School:

- (9) The significant difference has been shown of mean score between pre test and post test of Verbal Reasoning ability of the urban school's students of experiment group. It is point out that; due to Yoga exercises on experimental group, the students are higher than pre test of Verbal Reasoning ability.
- (10) The significant difference has been shown of mean score between control group and experiment group of Verbal Reasoning ability post test of the urban school's students. It is indicating that; the Yoga exercises improve the Verbal Reasoning ability of the students.

About the effect of Yoga exercises on Short-Term Memory of the students of Urban School:

- (11) The significant difference has been shown of mean score between pre test and post test of Short-term Memory of the urban school's students of experiment group. It is point out that; because of Yoga exercises on experimental group, the students are higher than pre test of Short- term Memory.
- (12) The significant difference has been shown of mean score between control group and experiment group of Short-term Memory's post test of the urban school's students. It is indicating that; the Yoga exercises improve the Short-term Memory of the students.

About the Sex effect of Yoga exercises on Academic Achievement of the students of Rural School:

- (13) The significant difference has been shown of mean score at 0.05 and 0.01 level between boys of control group and girls of experiment group of the Academic Achievement post test of rural school's students. The mean score of the girls (experiment group) were 43.5 and the mean score of the boys (control group) were 32.8. So, the mean score indicate that, the Yoga exercises is in favor of girls.

- (14) The significant difference has been shown of mean score at 0.05 level between girls of control group and boys of experiment group of the Academic Achievement post test of rural school's students. The mean score of the girls (control group) were 38.2 and the mean score of the boys (experiment group) were 42.5. So, the mean score indicate that, the Yoga exercises is in favor of boys.

About the Sex effect of Yoga exercises on Reasoning ability of the students of Rural School:

- (15) The significant difference has been shown of mean score at 0.05 level between boys of control group and girls of experiment group of the Verbal Reasoning ability post test of rural school's students. The mean score of the girls (experiment group) were 60.0 and the mean score of the boys (control group) were 47.8. So, the mean score indicate that, the Yoga exercises is in favor of girls.
- (16) The significant difference has been shown of mean score at 0.05 level between girls of control group and boys of experiment group of the Verbal Reasoning ability post test of rural school's students. The mean score of the girls (control group) were 46.8 and the mean score of the boys (experiment group) were 57.1. So, the mean score indicate that, the effect of Yoga exercises is in favor of boys.

About the Sex effect of Yoga exercises on Short Term Memory of the students of Rural School:

- (17) The significant difference has been shown of mean score at 0.05 and 0.01 level between boys of control group and girls of experiment group of the Short term Memory post test of rural school's students. The mean score of the girls (experiment group) were 41.55 and the mean score of the boys (control group) were 29.9. So, the mean score indicate that, the Yoga exercises is in favor of girls.
- (18) No significant difference has been shown of mean score at 0.05 and 0.01 level between girls of control group and boys of Experiment group of the Short-term Memory's post test of rural school's students. The mean score of the girls (control group) were 33.55 and the mean score of the boys (experiment group)

were 38.8. So, the mean score indicate that, the Yoga exercises is similarly in favor of boys and girls.

About the Sex effect of Yoga exercises on Academic Achievement of the students of Urban School:

- (19) The significant difference has been shown of mean score at 0.05 and 0.01 level between boys of control group and girls of experiment group of the Academic Achievement post test of urban school's students. The mean score of the girls (experiment group) were 44 and the mean score of the boys (control group) were 36.5. So, the mean score indicate that, the effect of Yoga exercises is in favor of girls.
- (20) No significant difference has been shown of mean score at 0.05 and 0.01 level between girls of control group and boys of experiment group of the Academic Achievement post test of urban school's students. The mean score of the girls (control group) were 41.5 and the mean score of the boys (experiment group) were 43.4. So, the mean score indicate that, the Yoga exercises is similarly in favor of boys and girls.

About the Sex effect of Yoga exercises on reasoning ability of the students of Urban School:

- (21) The significant difference has been shown of mean score at 0.05 and 0.01 level between boys of control group and girls of experiment group of the Verbal Reasoning ability post test of urban school's students. The mean score of the girls (experiment group) were 60.7 and the mean score of the boys (control group) were 47.0. So, the mean score indicate that, the Yoga exercises is in favor of girls.
- (22) No significant difference has been shown of mean score at 0.05 and 0.01 level between girls of control group and boys of experiment group of the Verbal Reasoning ability post test of urban school's students. The mean score of the girls (control group) were 58.6 and the mean score of the boys (experiment group) were 63.2. So, the mean score indicate that, the Yoga exercises is similarly in favor of boys and girls.

About the Sex effect of Yoga exercises on Short Term Memory of the students of Urban School:

- (23) The significant difference has been shown of mean score at 0.05 and 0.01 level between boys of control group and girls of experiment group of the Short-term Memory post test of urban school's students. The mean score of the girls (experiment group) were 40.45 and the mean score of the boys (control group) were 28.85. So, the mean score indicate that, the Yoga exercises is in favor of girls.
- (24) No significant difference has been shown of mean score at 0.05 and 0.01 level between girls of control group and boys of experiment group of the Short-term Memory's post test of urban school's students. The mean score of the girls (control group) were 33.35 and the mean score of the boys (experiment group) were 39.5. So, the mean score indicate that, the Yoga exercises is similarly in favor of boys and girls.

IMPLICATION OF THE STUDY

- (1) Yoga improves fitness, lowers blood pressure, promotes relaxation and self-confidence, and reduces stress and anxiety. People who practice yoga tend to have good coordination, posture, flexibility, range of motion, concentration, sleep habits, and digestion. Yoga is a complementary therapy that has been used with conventional therapies to help treat a wide range of health problems, but it is not a cure for any particular disease.
- (2) All branches of yoga mentioned above use three major techniques: breathing, exercise, and meditation. These three techniques have been shown to improve health in many ways:
- **Breathing lessons:** In yoga, breath work is known as Pranayama. Pranayama increases blood circulation and reduces oxygen consumption. That brings more oxygen to the brain, and improves the way your body uses oxygen. Breathing exercises can also increase how much air you can draw into your lungs. Getting lots of air into your lungs helps you feel alert and focused.
 - **Asana (postures):** Asana provide a gentle-to-intense workout that enhances strength, flexibility, and balance.

- **Meditation:** Meditation quiets the mind and brings on both physical and emotional relaxation, which helps reduce blood pressure, chronic pain, anxiety, and cholesterol levels.
- (3) This study helps to the students for doing Yoga exercises daily life.
 - (4) Government should encourage the research projects to enhance Memory, Reasoning ability and Yoga of rural areas students.
 - (5) Schools should use the materials related to Yoga exercises, Short-term memory test, and Verbal Reasoning ability test for the students who have lower memory and lower reasoning ability.
 - (6) The Yoga exercises programme is also helpful for schools curriculum and student's physical and Psychological issues and mood disorders

CONCLUSION

The most important objective of this study was; to examine the effect of Yoga on Academic achievement, Reasoning ability and Short-term Memory of the students of commerce stream. In this way, total 40-40 students were selected from two schools and “complete experimental simple equivalent group pre test-post test experiment design” was introduced for entire study. With the help of both group's pre and post test's score, t-test was used for calculation and testing of the hypothesis, with the help of computerized MS-Excel software.

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