



## Impact of Yogic Practices on Academic Achievement of High School Students

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### **Abstract**

*The present study focused on exploring the impact of yogic practices on academic achievement of high school students. The main objective of the present study is to find out the impact of yogic practices on academic achievement from a sample of 320 high school students. The Researchers followed experimental method to study the impact of yogic practices on academic achievement of high school students. The experimental group students were exposed for a period of three months daily for half an hour in yogic practices, which constitutes Shatkriyas, Pranayama and Meditation. Academic achievement test was used as a pre-test and post-test for both the experimental as well as control group to assess the effect of yoga on the academic achievement of the experimental group and to compare it with the control group, who never practiced yoga. The results revealed that no significant difference was observed between pre-test scores of different subjects namely Telugu, English, Mathematics, Science, Social Studies and overall achievement. Significant difference was shown between control and experimental groups in the post-test with respect to all subjects except Telugu. Similar finding was observed between pre-test and post-test scores of experimental group students in their achievement in all the subjects and total achievement.*

**Key words:** Yoga, Students, treatment, physiological, achievement

### **Introduction:**

Yoga is a fantastic system to maintain physical, mental, emotional and spiritual health. It is a "science", which provides a logical step-by-step process for a new understanding us and of the universe around. That is why our ancient seers and *Gurus* considered the practice of *Yoga* including meditation as part of educational process to keep the child sound in all aspects physically, mentally and spiritually. All educative process started and practiced long back in *Ashramas* or *Gurukulas* with *Yogic* practices by each and every disciple. To

get the maximum benefits from *Yoga*, one has to combine the practice of *Yogasanas*, *Pranayama* and Meditation.

The regular practices of *Yogasanas* have an immense amount of therapeutic value. Besides various physiological benefits, they positively influence the mind, the life force energies as well as the creative intelligence. *Yoga* provides internal peace, happiness, develops positive thinking, self-confidence, positive approach to life, state of mind with emotional stability and strong will power.



### Brief Review of Related Literature:

Research studies reveal that *Yoga* enhanced VIII standard students' scholastic aptitude as well as intelligence (Barnes and Nagarker, 1989). Amit Kauts and Neelam Sharma (2009) revealed that the students who experienced *yoga* module performed better in overall academics as well as in their separate subjects than those students who did not experience *yoga* module. Takhar and Sharma (2012) found that *yoga* can help to increase the academic achievement, the academic achievement of students living in urban area was increased as a result of training of *yoga* and development level of students was increased after the training of *yoga*.

The present study aims to examine whether there is any impact of *yogic* practices on the academic performance of students. Various studies have been conducted on various aspects related to the subject, viz., the role of *yogic* practices on mental health, anxiety, fatigue, etc. But fewer attempts have been made to study the impact of *yogic* practices on academic achievement of high school students.

### Hypotheses:

1. There will be no significant difference between the pre test-post test results of experimental group on the student's achievement. (Subject wise).
2. There will be no significant difference between the mean scores of control and experimental groups on the student's achievement in the post-test. (Subject wise).

### Methodology:

The students were administered pre-test and were divided into two groups before conducting the experiment. Thus, the present study was experimental in nature and a pretest, post test control group design with one experimental group was employed. *Yoga* treatment and achievement were the independent variables. The experimental research design adopted was pre-test and post-test equivalent group design.

### Selection of the sample for the study:

The researchers selected two mandals namely Tuni and Thondangi from East Godavari district of Andhra Pradesh for this study purpose by adopting stratified random sampling technique. The sample selected for the investigation consisted of a total of 320 students studying IX and X classes, out of which 160 are control group and 160 are experimental group students.

### Construction and administration of the tools:

To attain objective of the study the researchers constructed the following tools namely:

1. 24 Unit Tests in 6 school subjects on selected units from IX and X classes to estimate the achievement of the students. These 24 tests include 12 pre-tests and 12 post-tests i.e 6 pre-tests for class IX, 6 pre-tests for class X and 6 post-tests for class IX and 6 post-tests for class X.
2. *Yogic* practice to the experimental group for a period of three months duration which constitutes



*Shatkriyas, Pranayama* and Meditation.

The same pre-tests and post-tests were administered among control and experimental group students.

### Construction of Academic Achievement Tests:

The researchers constructed 6 subject wise test papers for IX and X class students on the selected units to know their academic achievement. On the whole the researchers prepared 24 test papers, out of which 12 are pretests and 12 are post tests strictly by following the procedure of test construction including the weightages and the blue print. These tests were pre-tested on 100 students, 15 experts with a request to suggest corrections if any to establish its content validity. Thus by incorporating the suggestions, the test papers were finalized and administered among 320 students after giving necessary guidance.

### Yoga Treatment:

The students were exposed to *yogic* practice as an intervention treatment for the experimental group for half an hour from 6.00 A.M to 6.30 A.M daily in the morning for three months. *Yogic* practice consisting of simplified physical exercises and meditation including prayer and value orientation was imparted to the experimental group by *Yoga* Instructor. Two different versions of academic achievement tests in each of the 6 subjects were administered on both control and experimental groups as post test to eliminate carry over effect.

### Statistical Analysis:

**Table: 1 - Comparison of Pre-test and Post-test Experimental Group on Academic Achievement in Telugu**

Subject	Test	Mean	S.D	't'- value
Telugu	Pre-test	15.24	6.11	3.10**
	Post-test	17.09	4.41	

\*\*Significant at 0.01 level

The above table reveals that the calculated 't' value 3.10 is significant at 0.01 level. Hence, null hypothesis "there will be no significant difference

between the pre-test and post-test results of experimental group students in Telugu subject" is rejected.



**Table – 2: Comparison of Pre-test and Post-test Experimental Group on Academic Achievement in English**

Subject	Test	Mean	S.D	't'- value
English	Pre-test	13.44	6.35	4.64**
	Post-test	16.38	4.85	

\*\* Significant at 0.01 level

The above table reveals that the calculated 't' value 4.64 is significant at 0.01 level. Hence, null hypothesis "there will be no significant difference between the pre-test and post-test results of experimental group students in English subject" is rejected.

**Table – 3: Comparison of Pre-test and Post-test Experimental Group on Academic Achievement in Mathematics**

Subject	Test	Mean	S.D	't'- value
Mathematics	Pre-test	13.03	6.87	2.97**
	Post-test	15.16	5.94	

\*\*Significant at 0.01 level

The above table reveals that the calculated 't' value 2.97 is significant at 0.01 level. Hence, the null hypothesis "there will be no significant difference

between the pre-test and post-test results of experimental group students in Mathematics subject" is rejected.

**Table 4: Comparison of Pre-test and Post-test Experimental Group on Academic Achievement in Science**

Subject	Test	Mean	S.D	't'- value
Science	Pre-test	15.28	6.32	3.95**
	Post-test	17.81	5.06	

Significant at 0.01 level

The above table reveals that the calculated 't' value 3.95, is statistically significant at both the levels. Hence, the null hypothesis "there will be no significant difference between the pre-test and post-test results of experimental group students in Science subject" is rejected.



Table-5: Comparison of Pre-test and Post-test Experimental Group on Academic Achievement in Social Studies

Subject	Test	Mean	S.D	't'- value
Social Studies	Pre-test	15.57	5.88	3.60**
	Post-test	17.71	4.68	

\*\*Significant at 0.01 level

The above table reveals that the calculated 't' value 3.60 is significant at 0.01 level. Hence, the null hypothesis "there will be no significant difference between the pre-test and post-test results of experimental group students in Social Studies" is rejected.

Table-6: Comparison of Pre-test and Post-test Experimental Group on Total score of Academic Achievement

Subject	Test	Mean	S.D	't' value
All Subjects	Pre-test	72.56	26.09	3.39 **
	Post-test	81.59	21.30	

\*\* Significant at 0.01 level

The above table reveals that the 't' value 3.39 is significant at 0.01 level. Hence, null hypothesis "there will be no significant difference between the pre-test and post-test results of experimental group students in total subjects" is rejected.

### Findings:

1. There is a significant difference between control and experimental group students in their achievement in the post-test scores with respect to English, Mathematics, Science, Social Studies subjects and overall achievement.
2. There is a significant difference between pre-test and post-test scores of experimental group students in their achievement in all the six subjects namely Telugu, English, Mathematics, Physical and Biological Sciences and Social Studies and total achievement. From this it can be understood that there is an impact of *Yogic* Practices in securing better academic achievement scores.
3. The exposure towards *Yoga* and conduct of *Yogic* exercises and practices helped the students in changing their behavior. It shows that the students revealed positive remark on the application of *yogic* practices that helped them.



**Conclusions:**

After analyzing the data by carrying out the statistical treatment and the findings, the following conclusions can be drawn:

Significant difference was shown between control and experimental groups between IX and X class students, between control and experimental in the post-test with respect to subjects namely English, Mathematics, Physical and Biological Sciences, Social Studies and overall achievement but not in Telugu. Significant difference was observed between pre-test and post-test scores of experimental group students in their achievement in all the subjects and total achievement.

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