



## **Impact of Yoga and Meditation on the Academic Performance In Relation To Stress Level**

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### **Abstract**

For millennia, people have studied, explained, and experienced the intricacies of the human mind and life via the practise of yoga, one of the six pillars of Indian philosophy. The Patanjali Yoga Sutras describe a subtle style of living that promotes peace and moderation. The theory of Karma Yoga (the path of detached action), Jnana Yoga (self-knowledge), Bhakti Yoga (faith in the highest order), and Raja Yoga (asana, pranayama, meditation, etc.) are all included in the yoga way of life. The many meditation methods operate on a cerebral level; their goal is to help the practitioner cultivate a particular kind of awareness that, in turn, affects how they feel emotionally. Exercise has been shown to be beneficial in reducing the stress response by numerous researchers. Although the results are not easily replicated academically, yoga has been investigated and advised in connection to stress. However, a number of researchers assert that practising yoga has a highly positive impact on reducing stress and its aftereffects. As per Srinivas (2014), an array of methods commonly referred to as "Yoga" offer a plethora of opportunities for producing native methods of organisational development. Yoga provides a well-thought-out strategy for deliberate change. Long-term yoga practitioners have a remarkable voluntary control over their autonomic processes, which helps them cope with psychological stress, according to the results of scientific investigations on yoga.

**Keywords: Yoga, Stress**

### **1. INTRODUCTION**

Many of the yoga-based programs that have been widely studied in the use of stress reduction are being formulated and customized as per the corporate needs. The mindfulness-based stress reduction program includes guided instruction in mindfulness meditation practices, yoga and gentle stretching, inquiry exercises to enhance awareness, individual instruction, group dialogue and home assignments. The Yoga classes are to be designed incorporating breathing techniques exercises for strength, vitality, and flexibility, guided relaxation and meditation.

Meditation has proved to be of great help to combat stress and revitalize the mind. After doing meditation for 10 to 20 minutes once or twice a day, stress is seemed to be drifting away with positive energy. Meditation that cultivates mindfulness is particularly effective at reducing stress, anxiety, depression, and other negative emotions.

Meditation is a skill tool for Life Enhancement, Workplace Efficiency, Stress Management, Emotional and Spiritual Fulfillment. It helps in balancing mind and body and increases mental alertness, concentration – resulting in clarity of decision making. A recent survey found that 60% of general practitioners wanted educational material to help in the management of stress, and that 28% of those seeking education were experiencing significant levels of stress. Experiments have shown that meditators maintained psychological equilibrium under stress more effectively than non- meditators.

The art of meditation has made its way into the corporate environment and is one of the best way to reduce stress in the workplace. Most of the companies today such as IBM Corp., Infosys etc. are offering meditation programs on-site to their employees to help them reduce stress.

Meditation workshops have become a valuable training tool in the workplace because meditation has so many practical applications. It is a skill that can be easily learned and can be done



anywhere, anytime stress occurs — walking down the hall, at a worker's desk, or in a stressful meeting. Even a few minutes of meditation done throughout the day can make a huge difference in a worker's attitude, productivity and effectiveness.

Stress tends to be either ignored or dismissed by the very people who are best placed to do something about it — managing and senior directors, personnel and training managers, occupational health workers, and departmental managers and supervisors. The opportunity exists for employers and employees to get together and make way for changes that will reduce stress related illness.

Richard Geller (2012) is president of Med Works Corporate Meditation Programs in Brookline, a company that focuses exclusively on offering stress-reduction meditation programs on-site in the corporate environment in the metro (Boston area). The idea behind meditation is to consciously relax your body and focus your thoughts on one thing for a sustained period.

Based on the various clinical relaxation researches conducted by various psychologists worldwide, it is considered that breathing is an important component of the relaxation response. Author reports that certain meditation styles bring some biochemical and physical changes in the body, which may be collectively referred to as the "relaxation response" that includes changes in metabolism, heart rate, respiration, blood pressure, and brain chemistry.

Change must come from the top, and it is therefore imperative for managers to recognize that they have a legal and moral responsibility to protect the physical and mental wellbeing of their workers (Clark, 2012).

It is the top management people who can motivate organizations to explore the stress factors in their work environments, and to take steps to reduce and prevent it along with the maintenance of the health and wellbeing of employees.

The purpose of the present study was to directly compare the acute effects of participating in a single yoga class versus a single standard physical education (PE) class on student mood. Forty-seven high school students completed self-report questionnaires assessing mood and affect immediately before and after participating in a single yoga class and a single PE class one week later.

## **2. OBJECTIVE**

- To Study Impact Of Yoga And Meditation On The Academic Performance In Relation To Stress Level

## **3. IMPACT OF YOGA ON THE STRESS LEVEL**

Data were analyzed using paired-samples t tests and Wilcoxon-signed ranks tests and by comparing effect sizes between the two conditions. Participants reported significantly greater decreases in anger, depression, and fatigue from before to after participating in yoga compared to PE. Significant reductions in negative affect occurred after yoga but not after PE; however, the changes were not significantly different between conditions. In addition, after participating in both yoga and PE, participants reported significant decreases in confusion and tension, with no significant difference between groups. Results suggest that school-based yoga may provide unique benefits for students above and beyond participation in PE. Future research should continue to elucidate the distinct psychological and physiological effects of participating in yoga compared to PE activities.

Research that has been done exploring the effects of yoga interventions on youth in educational settings has indicated potential benefits in several domains. In a recent literature review, 12 studies were evaluated that used yoga interventions for students in several school contexts,



including interventions conducted as part of regular school programming, after school programming, and as an offering at a residential treatment school.

One third of these studies were conducted with students receiving special education services, and the remaining two thirds were conducted with typically developing or high-risk youth. This review concluded that although the yoga interventions surveyed appeared to be beneficial for students, significant methodological limitations existed in most studies, including quasi-experimental study designs, small sample sizes, and inconclusive quantitative results. Additional studies of school-based yoga interventions also suggest positive effects of these programs on several factors such as concentration, attention, anxiety, stress, mood, resilience, emotional arousal, self-esteem, and coping frequency.

Although the application of contemplative practices, such as yoga, in educational settings is an emerging field of scientific inquiry, there exist sound theoretical rationales for this integration. Davidson and colleagues (2012) recently reviewed the evidence supporting a framework whereby contemplative practice strengthen basic cognitive and emotional neural processes, which in turn result in improved psychological and behavioral functioning in the classroom. As described in this framework, a common shared characteristic among contemplative practices is that they include regular practice in maintaining attention on a particular sensory experience, such as the sensation of breathing or somatic experience such as during yoga. By maintaining this state of awareness, cognitive abilities to regulate attention and emotion are bolstered, as individuals develop the skills needed to disengage their attentional resources away from stimuli that elicit undesirable outcomes (e.g., negative affective states and patterns of behavior) while simultaneously cultivating desirable dispositions (e.g., positive affective states and increased activation of the parasympathetic nervous system). These Improvements in basic self-regulatory skills then lead to improvements in other aspects of functioning, such as student behavior and academics.

The rationale for this current study was to contribute to the existing literature by addressing methodological limitations noted in previous reviews, and by demonstrating the benefits of yoga practices to student mood and emotional well-being. To address methodological limitations, this study used an active control condition to evaluate the effects of yoga as compared to PE by contrasting student outcomes before and after a single class, examining within-group changes in students' psychosocial well-being relative to the class they were engaged in. We also chose to replicate and extend results found in a previous study that explored the effects of a specific yoga intervention on a specific measurement of psychosocial well-being, thereby also addressing another methodological limitation noted in the literature. This work also aims to extend the literature supporting the benefits of contemplative practices to emotional wellbeing by empirically evaluating effects to mood and affect, in-line with theoretical conceptualizations of contemplative practices with youth in educational settings. To our knowledge, this is the first study to examine the immediate effects of participating in a single yoga class versus a single PE class on student psychosocial well-being.

Today, an ever increasing number of individuals in the Western world are getting to be health cognizant. This reestablished thoughtfulness regarding health may mirror our feeling of unevenness with quickened mechanical development, while we witness our mind blowing potential to change the external world; in the meantime we encounter a developing hunger for internal change. We need to live healthy, beneficial, and significant lives with a feeling of inward happiness.

Following the present pattern toward enhancing the personal satisfaction, the health business has





bloomed. New prepackaged, summed up, get healthy snappy projects consistently show up and yoga, as well, has been brought into the market. The standards and logical methodology that yoga utilizes are without inclination and consequently can be connected independent of race, religion or faith. It pervades convictions just to enable all the positive aspects of life and significantly more.

This is an extraordinary and helpful advancement. It is imperative, however, that amidst this development the more profound, all the more really down to earth significance of yoga not be lost, that, with an eye to the commercial center, we not dismiss the fundamental standards hidden this significant convention.

As individuals, we are a complex of interrelated frameworks (counting the different parts of our life structures, physiology, and brain science) existing inside a bigger complex of interrelated frameworks, including our relational connections and our condition. There is a complementary connection between these different basic parts and the metabolic working of the body in general. The body has a characteristic, natural wholeness, and the way to health lies in the reasonable association of every one of these frameworks.

We have all seen that there are a few people who dependably appear to be healthy, while others have unending issues and we may will in general think about these distinctions as being to a great extent imbued, particularly today, as we take in more and increasingly about the job of hereditary legacy in individual health. However, while the facts confirm that we are each brought into the world with certain hereditarily foreordained qualities that impact our health, our identity and how we feel is unequivocally affected by our everyday movement. This implies we have prospect, through modifying our activities, to accomplish colossal changes in our wellbeing. In the event that we comprehend our identity, we can refine and enhance how we feel, regardless of what our hereditary inclination.

The way toward accomplishing wellbeing, notwithstanding, is entangled by the way that our everyday action is affected by our molding, what is referred to in the yoga convention as samskara. For every one of us, this molding has been shaping since early adolescence.

It is the aftereffect of our specific connection to our relational and social conditions, the outcome, truth is told, of all our past activities.

#### **4. Results**

During childbirth a large portion of our developments are natural we encounter yearning or dread, and we react by crying. As we develop, our developments progressively turned out to be increasingly dynamic, increasingly purposeful, and as the mind creates, it starts thus to program the working cerebrum and body. Figuring out how to stroll, to converse with play, to relate with other individuals securing these aptitudes we force onto our intramuscular structure a request that moves toward becoming modified, through redundancy, into our pre engine cortex as progressively adapted reflexes. Where we once needed to concentrate all our consideration on a development as apparently basic as strolling, we are step by step designed to move reflexively, unknowingly. This learning procedure is the start of our molding, and it is the reasons we tend, regardless of whether we don't care to let it be known, to walk, talk, and carry on like our folks or the general population who raised us.



**Table 1: Mean, Median, Mode, Standard Deviation, Skewness and Kurtosis of the group which practiced Yoga and Meditation on Pre-Test, Post Test and Gain Score on the variable of Academic Performance and Stress (N=125)**

Variable		Mean	Median	Mode	SD	Skewness	Kurtosis
Academic Performance	Pre- Test	26.71	25.00	21.58	17.00	0.109	-0.929
	Post-Test	37.01	37.00	36.99	13.31	-0.286	-0.825
	Gain Score	10.30	9.00	6.41	10.19	0.364	-0.708
Frustration		67.21	66.00	65.58	16.85	0.185	-0.841
Conflict		36.28	38.00	41.44	13.71	-0.329	-0.914
Pressure		53.02	55.00	58.95	22.20	-0.128	-0.731
Anxiety		35.35	35.00	34.30	13.48	-0.187	-0.973
Total Stress		191.86	190.00	186.27	28.70	0.040	-0.818

The values of mean, median and mode on the variable of academic performance of group which practiced yoga and meditation of 9th class students in Pre-test are 26.71, 25.00 and 21.58 respectively which are quite proximate to each other. The values of skewness and kurtosis for Pre-test are 0.109 and -0.929 showing the curve as positively skewed and platykurtic. The values of mean, median and mode on the variable of academic performance of group which practiced yoga and meditation of 9th class students in Post-test are 37.01, 37.00 and 36.99 respectively which are quite proximate to each other. The values of skewness and kurtosis for Post-test are -0.286 and -0.825 showing the curve as negatively skewed and platykurtic. The values of mean, median and mode on the variable of academic performance of group which practiced yoga and meditation of 9th class students in Gain score are 10.30, 9.00 and 6.41 respectively. The values of skewness and kurtosis for Gain score are 0.364 and -0.708 showing the curve as positively skewed and platykurtic.

An overview of the above results indicates that the distribution of scores of 9th class students of experimental group was near normal on the variables of academic performance in Pre-test scores, Post-test scores and Gain scores, and interest in science. The distortions in both the values of skewness and kurtosis from the normal value (0.00 for skewness and 0.000 for kurtosis) were negligible. Hence, the distribution can be treated as near normal.

**Table 2: t-ratio between Mean Scores of the Students who practiced Yoga and Meditation and who did not practice Yoga and Meditation in Academic Performance in Pre-Test and Stress (n=250)**

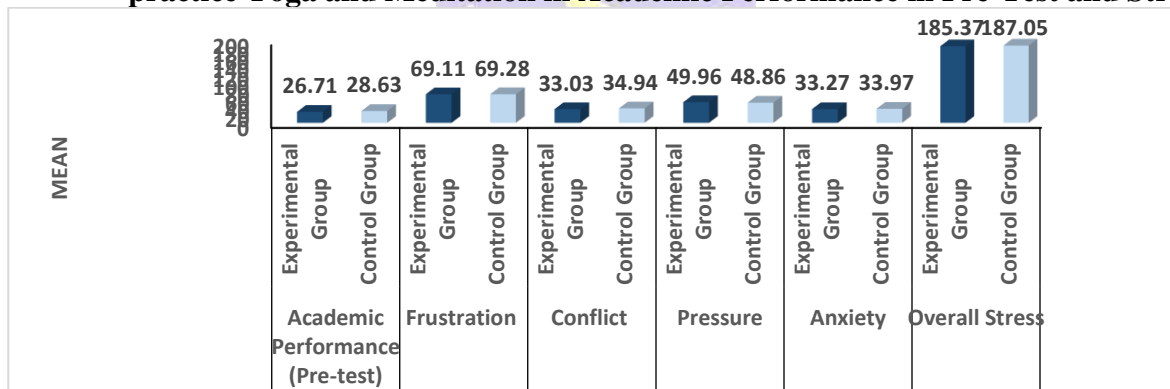
Variable	Groups	N	Mean	S.D.	SE <sub>D</sub>	t-ratio
Academic Performance (Pre-test)	EG	125	26.71	17.00	1.28	1.10



	CG	125	28.63	15.61	1.18	(NS)
Frustration	EG	125	69.11	16.69	1.26	0.09
	CG	125	69.28	17.56	1.33	(NS)
Conflict	EG	125	33.03	13.46	1.02	1.32
	CG	125	34.94	13.66	1.03	(NS)
Pressure	EG	125	49.96	20.76	1.57	0.49
	CG	125	48.86	21.26	1.61	(NS)
Anxiety	EG	125	33.27	14.15	1.07	0.46
	CG	125	33.97	14.22	1.07	(NS)
Overall Stress	EG	125	185.37	35.66	2.70	0.45
	CG	125	187.05	34.00	2.57	(NS)

NS means non-significant. EG=Experimental Group, CG=Control Group

**Fig. 1: Mean Scores of the Students who practiced Yoga and Meditation and who did not practice Yoga and Meditation in Academic Performance in Pre-Test and Stress**



The mean scores of the group of students who practiced yoga and meditation and group of students who did not practice yoga and meditation in academic performance in pre-test are 26.71 and 28.63 respectively and standard deviations for the same are 17.00 and 15.61 respectively. The value of t-ratio is 1.10 which is not significant at .05 level showing that there exists no significant difference in academic performance in pre-test of both the groups. Likewise, the mean scores of the group of students who practiced yoga and meditation and group of students who did not practice yoga and meditation in conflict component of stress are found to be 33.03 and 34.94 respectively and standard deviations for the same as 13.46 and 13.66 respectively. The value of t-ratio comes out to be 1.32 which is insignificant showing no significant difference in conflict component of stress between experimental and control groups.

As we keep on developing, even past adolescence, the improvement of our body and mind keeps on being molded by these twin procedures of intramuscular association and socialization. In the interim, those specific examples we each obtain and create are constantly flawed somehow or





another, in connection to wellbeing, despite the fact that they enable us to work. Truth be told, on the grounds that they enable us to work and are in this way, fortified they hinder our ideal improvement. The aftereffect of this molding is imbalance at various dimensions of our framework, amassing of pressure, and, at last, disease. In ordinary conduct our consideration is principally centered outward, into the world. Accordingly, we are commonly uninformed of the mechanical and dreary nature of our activities, both physical and mental. In this way, the beginning stage in breaking these cycles and changing the nature of our lives must disguise our consideration. This is the way to the yoga procedure. This procedure starts with the order of body, breath, and mind, referred to in the yoga convention as asana practice. At the most essential dimension, this training includes intentionally moving the body into explicit stances asanas staying in these stances for quite a while, and sorting out them together specifically successions. Since old occasions, the asanas have been characterized as far as moderately exact structures, by acing these structures; an individual exhibited his or her dominance of certain essential standards of development. However, it was likewise commonly comprehended that the commonsense use of these standards must be founded on every individual's genuine condition. A people method for doing each stance was thusly worked out among educator and understudy. In this sense, the change estimation of a stance was dependably found in connection to its capacity, not to its frame. Lamentably, boss among the well-known misinterpretations about yoga is the possibility that the estimation of each stance lies in accomplishing its exact, settled shape. Subsequently, accentuation has again and again been set on shallow subtleties of situating and the improvement of the body toward biased, outside measures of flawlessness and the structures have been solidified into inflexible, static stances in which the living nature of the asana is lost. In any case, in the event that we endeavor along these lines to meet outside principles, without first perceiving our genuine condition and building up our training in like manner, we may really re uphold useless examples and totally miss the more profound estimation of asana practice.

## 5. CONCLUSION

Yoga professionals by and large endeavor to accomplish a frame through a stubborn exertion of solid constriction, however the accomplishment of a shape through static withdrawal makes inflexibility and, eventually, different issues, for example, pressure at the joints and confinement of blood stream. The body makes opposition, stretch is caught up in defenseless zones, and issues unavoidably grow, either instantly or after some time. Our endeavors to accomplish the exact type of an asana at that point turn into a really unsafe inconvenience of the body, of a request that has no connection to the genuine needs of the body. In the event that we investigate the traditional asanas as far as their capacity and interrelation, in any case, we can consider them to be an efficient record of the auxiliary capability of the human body. As indicated by this view, the advantages to be accomplished from these stances determine not at the dimension of frame but rather at the dimension of capacity.

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