

## Enhancement of academic performance: Investigation of prevailing effects of meditation and yoga

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### Abstract

The purpose of the study is to understand the impact of yoga and meditation on academic performance among students. One-way ANOVA had been used to know the difference between students who underwent yoga and students who have not been given any training. It is found from this study yoga and meditation helps students for enhancing their academic performance.

**Keywords:** Yoga, Meditation, Training, Education, Academic performance.

### Introduction

Since from long years yoga and meditation is described as the art of refining body and mind, it has gained much more focus on many studies. The eastern concepts of yoga and meditation have given answers to various aspects of western cultural deeds. On contemplating these concepts with various performance attributes we found astonishing results (Bogart (1991) like awareness of problem, initiating a creative ideology to solve, enhancement of self-regulation, self-responsibility and constructive behaviour. All those self-regulation, self-responsibility and constructive behaviours are profound to be the good behaviour of a student. Kusurkar, Rashmi A., Gerda Croiset, and Olle Th J. Ten Cate (2011) describe that internalization generated by meditation frames self-regulation that motivates any individual to move towards their goal.

Now there are too many challenges in front of students to deviate them from their responsibilities. As digital world has shrunken the world into pieces of electronics it has spewing countless data to students that replicate in generation of irrelevant thoughts. Acquired irrelevant information and it fantasy has deviate the students from their regular activity. So lack of self -regularization, realization of role amongst of students and an anonymous situation aroused makes them to suffer with absence of mind. Absence of mind and reduced memory power always has its impact on student performance. Chinese Qi Gong meditation technique explains when we observe our thoughts we can identify the repeating thoughts which influences our whole memory by creating less focus on other things. Lie et.al (1990) explains that the self-observation can be done by meditation and yoga.

Kokoszka (1990) defines meditation as an act of spiritual contemplation that enable an individual to attain self-experience and self-realisation. Similarly Yoga is described as separate discipline comprised of various specific physical postures, simple meditation including breath control and it is widely practised for both physical and mental health. Albeniz & Holmes (2000) reported that meditation has produced both psychological and physiological impacts. Colby (1991) and Levenstein (1996) explained meditation as

accumulated art of attention focus, physical postures and various styles of breathing initiate positive effects of individual. Mostly yoga and meditation is perceived as an art for old aged people, there are some studies in western countries(Hall 1999) which examined the impact of yoga and meditation with academic performance of students and established its significance. So our study aim is understand how yoga and meditation helps students' in Middle East countries for their academic performance.

### Review of literature

The concepts of yoga and meditation has not gained its momentum by last decade, it is a research of a human being started since from 2000 years ago to understand their existence and experience in the world. Though yoga and meditation is practised traditionally with some religious context the modern social scientists like Russell1986, West 1987 and Epstein 1990, have attempted to extract its spiritual and philosophical context for the promotion of human wellbeing. Those scientists declared that practising yoga and meditation will makes people to feel comfortable with uncertainty, ambiguity and with ignorance. It always helps to maintain calm attitude in all situation and enables patience among worried one.

Rathus (1997) explains meditation as art of narrowing one attention in a way to slow down his metabolism to feel relaxed. Meditation fosters self-regulation, self-recognition, self-realization and trust with their future. Craven (1989) augmented that meditation improves behavioural pattern of an individual as more relaxed, concentrated, awareness and self-observation. Recognition or regulation is referred as remembering events met before. Individual action of retrieving, analysing understanding and recognizing are listed as the constituents of memory process by Rathus (1997).

Jangid, Vyas, and Shukla's (1988) also proved that meditation practise among students increased their memory capacity substantially. In the same line of thought Chang & Hiebert (1989) explored that students learned meditation displayed better academic performance. Earlier Padawer 1977 tested progressive relaxation technique with students identified as poor reader. For that study both the teachers and students were underwent two weeks pre training program and then the progressive relaxation training was included with regular class routine. The results of this study explored the increase in academic performance of the respondents. Spillios and Janzen (1983) studied the effects of meditation with anxious learning disabled students and found positive significance. Study of Alexander, Langer, New- man, & Chandler (1989) with 73 adult students proved meditation practise among students have improved cognitive flexibility among students which enables better academic performance. Similarly numerous studies have proved that yoga and meditation has positive impact on academic performance of students (Amerikaner & Summerlin (1982), Bruno-golden (1978) and Carter & Russel (1985). The prevailing impact of meditation with academic performance induced us to conduct this study for the noble cause of our students.

#### Conceptual definitions

##### Yoga yoga

A separate discipline of people belongs to Hinduism and Buddhism as concentration practice, performing physical postures and practising special style of breathing.

##### Meditation

Art of observing the whole world with relevant to existence and experience

## Research Methodology

### Sample

One hundred and eight students enrolled with under graduate degree of science subjects were participated in that study. Students from four classes studying common subject was selected randomly. Half of the students from the selected respondents were assigned to undergo meditation training; remaining students were left free from meditation training.

### Procedure

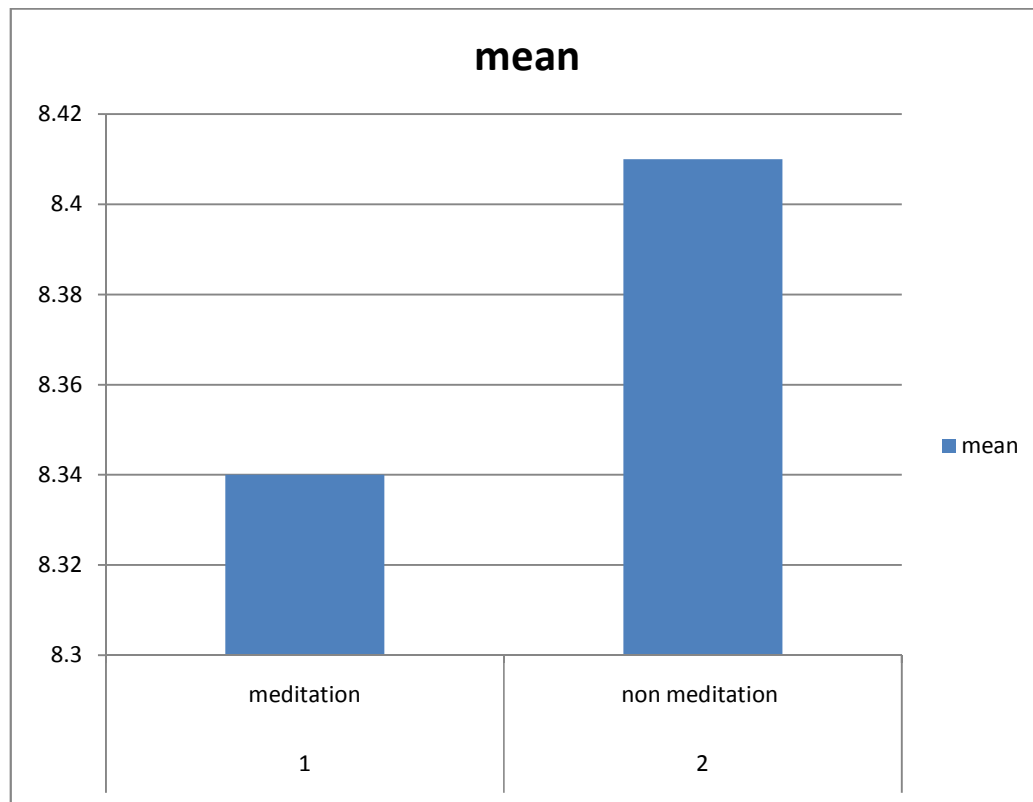
Our aim of the study is to understand the impact generated by meditation with academic performance of students studying undergraduate courses. We started our research at the beginning of the semester and collected last semester marks of respective students. The selected respondents were detailed about the research and its time period. We split the total respondents of hundred eight members into two groups, they were instructed to attend special classes thrice in a week for one and half hour. Among the two groups one group was given with meditation training such as doing physical postures, breathing techniques and meditation for forty five minutes. Rest of the time in special classes is allotted for them to prepare their subjects. Those students whom got meditation training were requested to do the same in their home before reading their subjects. The second group of students attended special class were instructed to read their subjects and doubts in the subjects was answered there to address there queries. It is clearly explained that instruction given in the groups were not disclose to anyone. At the end of the semester two groups were called up and we briefed about our study and its results.

## Results

### Pre training GPA analysis results

One-way ANOVA was performed to analyse the group variance on GPA scores. The cumulative score of 892 for 108 students were analysed and the results revealed there is no significant difference between two groups (meditation group & non meditation group),  $F = 2.267$  and  $p = .486$ . The means of the two groups 8.34, 8.41 also proves no similarity existed between the groups. It indicates that the two groups were matched same with their GPA prior to our study.

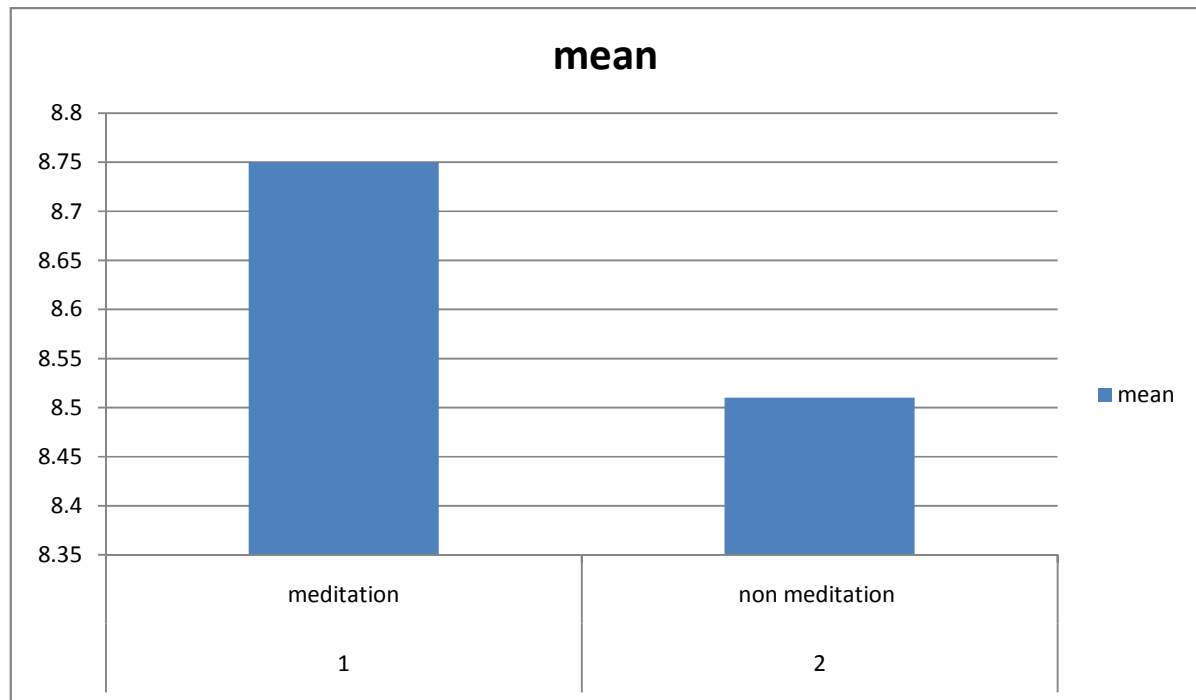
Figure 1 Comparison of GPA score between meditation and non-meditation groups



### Post training GPA analysis results

One-way ANOVA was performed to analyse the group variance on GPA scores. The cumulative score of 912 for 108 students were analysed and the results revealed significant difference between two groups (meditation group & non meditation group),  $F = 1.825$  and  $p = .031$ . The means of the two groups 8.72, 8.51 also explored differences existed between the groups. It proves the two groups are not the same as like pre-training GPA scores.

Figure 2: Comparison of GPA score between meditation and non-meditation groups



## Discussion

A long way of research has tested and established meditation will generate positive effect among individuals. Our study has added one more feather on the research of yoga and meditation .Our study results imply that mediation practise has generated positive effect among students on improving their academic performance. Our study stands in line with the research done by chang&Heibert 1989 as meditation will enhance academic performance of students. Comparing the GPA scores of two semesters, the semester score earlier to meditation training has shown that meditation group mean scores are lesser than the non-meditation group. The same was reversed when compared with the scores after meditation training as the mean scores of meditation and non-meditation group as 8.72, and 8.51.

The impact of meditation within a semester has marked its practice as much more important, continuing the learned practise will give consistency on academic performance. Our result conveys the importance of meditation practise among students and also recommends teaching meditation and yoga to all students to maximize academic performance. Practising meditation also reduces stress among students so it helps the student to regulate them towards their goal. Further research on this concept with larger samples will help us to generalize the meditation practise to all. Applicability of this meditation practice in various segments will also unveil many beneficial things. Herewith it is concluded that apart from culture and religious difference the goodness of any practise will remain same with all of us.

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