



EFFECT OF REGULAR YOGIC PRACTICES ON PROBLEM SOLVING ABILITY OF ADOLESCENT BOYS

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ABSTRACT

The objective of the present study was to find out the efficacy of 12 weeks yoga program on problem solving ability of adolescent school boys. To conduct the study, 50 adolescent boys (Ave. age 17.42 yrs) were selected from senior secondary schools operational in and around Raipur Chhattisgarh. Random sampling was used in the present study. The selected subjects participated in 12 week yoga program of selected yoga practices. Hindi version of problem solving ability scale prepared by Sharmila and Naga Subramani (2011) was used to collect data on problem solving ability. The data was collected before the commencement of study period and after the completion of 12 weeks yoga program. The results reveal significant impact of yoga program on problem solving ability of adolescent boys. It was concluded that 12 weeks of yoga program was found useful in enhancing problem solving ability of adolescent boys. The results are discussed in the light of global perspective of yoga practices.

KEYWORDS: Elite, Sub-elite, Problem solving ability.

INTRODUCTION

Higher order cognitive processes consists of working memory, reasoning and cognitive flexibility. It enables a person to make conscious effort to solve problems. The goal directed problem solving is part of executive functions of our brain (Logue and Gould, 2014)¹. One of the factors that is integral part of brain's executive function is problem solving skills. Problem solving involves new techniques and strategies to achieve desired results (Thornton, 1998)². It is believed that ability to solve problems makes it easier for an



individual to different circumstance in life. According to D'Zurilla et al. (2007)³ good problem solving ability makes individual self confident with higher level of self esteem which enables a person to achieve their desired goals in life.

It has also been observed that ancient Indian practice like yoga is useful in enhancing the memory, concentration and overall functioning of brain. Regularly practice of yoga has been found to be beneficial for attention span, remote memory, processing ability, verbal retention also (Chattha et al. 2008⁴; Prakash et al., 2010⁵). The efficacy of yoga has also been shown in improving spatial information, verbal memory, time taken for planning an action, execution time of certain cognitive task and some cognitive processes (Manjunath and Telles, 2001⁶, Manjunath and Telles, 2004⁷, Sarang and

Telles, 2006⁸). Surprisingly effect of yoga on problem solving ability of adolescent students has not been studied so far, hence the present study was planned.

Hypothesis

Follow up data on problem solving ability of adolescent boys will show positive effect of 12 weeks yoga program.

METHOD:

To test the abovementioned hypothesis, following methodological steps were taken.

Sample :

To conduct the study, 50 adolescent boys (Ave. age 17.42 yrs) were selected from senior secondary schools operational in and around Raipur Chhattisgarh. Random sampling was used in the present study.

Tools :

Hindi version of Problem Solving Ability Scale prepared by Sharmila and Naga Subramani (2011) was used to assess problem solving ability of selected elite and sub elite players. It is based on 5-point Likert scale. The problem solving ability scale consists of 40 items with fair reliability and validity coefficient.

Design:

The study was planned on the basis of the principles of single group experimental design.

Procedure :

- 50 adolescent boys from senior secondary schools operational around Raipur city were selected. Prior permission was obtained from school administration and parents regarding participation of these selected subjects.
- The subjects performed selected yogasana for a period of 60 minutes every day except weekend and holidays. The selected subjects underwent this schedule for 12 weeks with moderate level of modifications in yogasanas as per individual subjects fitness level.
- The data was collected twice. Firstly problem solving ability scale was administered to each subjects prior to the commencement of study period. After completion of 12 weeks yoga program, problem solving ability scale was again administered to each subject. The response of subjects was scored off as per author's manual.
- After scoring, paired sample 't' test was used to compare the pre-post data on problem solving ability.
- The analysis of data is presented in table 1.

RESULTS

Table 1
Comparison of Pre- Post Test Mean Scores on
Problem Solving Ability in Adolescent Boys

Variable	N	Pre-Test	Post Test	Mean Diff.	't'
		Mean±S.D.	Mean±S.D.		
Problem Solving Ability	50	118.66±13.39	120.16±13.44	1.50	8.48, p<.01

Results of the paired sample 't' test shown in table 1 indicate that in a group of adolescent school boys, mean scores on problem solving ability scale differ before yoga exercise program (M=118.66) and after yoga exercise program of 12 weeks (M=120.16) at .01 of statistical significance. The mean difference of 1.50 shows that after imparting yoga program problem solving ability was significant increased as compared to what it was before the commencement of study period. ($t=8.48$, $df=49$, $p<.01$).

DISCUSSION

Results of the present study indicate a positive influence of yoga program on problem solving ability of adolescent school boys. In previous studies it has been very well documented that regular yoga practices improves speed of information processing, memory, concentration and overall functioning of the brain. Since all these aspects are essential in problem solving ability, hence the result of the present study is not surprising.

CONCLUSION:

On the basis of results it may be concluded that yoga program of certain duration is beneficial in enhancing the problem solving ability of adolescent boys .

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