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Effect of Pranayama and Meditation on Academic Achievement and Leadership of Deaf and Dumb Students

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Abstract

The purpose of the study was to find out the effect of Pranayama and Meditation training on academic achievement and leadership of Deaf and Dumb students. Fifty deaf and dumb male students (25 each in Experimental and Control group) were selected to act as subjects for this study of age ranging from 13-18 years from Deaf and Dumb school, Meerut (Uttar Pradesh). All the subjects were selected through simple random sampling technique. Twelve weeks of pranayama and meditation training were given to the experimental group. The control group was not allowed to participate in any of the pranayama and meditation training programmes, except their routine schedule. In the present study Pranayama (Anuloma-Viloma and Bhramari) and Meditation (Mindfulness) acted as independent variables and Academic achievement and Leadership acted as dependent variables. Academic achievement and Leadership was assessed by Multi-Dimensional Assessment of Personality Series (MDAPS) developed by Sanjay Vohra. The analysis of covariance (ANCOVA) was used with pre data as covariate to find out the significant difference, if any, between the groups on both selected criterion variables separately. The statistical analysis revealed that there was significant difference in Academic achievement and insignificant difference in Leadership at 0.05 level of confidence between the control and experimental group of deaf and dumb students. The study concluded that Pranayama and Meditation may be beneficial in improving Academic achievement and may not be effective in improving Leadership of Deaf and Dumb students.

Key words: Deaf, Dumb, Pranayama, Meditation, Academic achievement & Leadership.

1. Introduction:

Yoga is the key to all ailments related to human body. Yoga is now adopted by many people to stay fit, both mentally and physically. Among all the poses of the art, there are a few breathing techniques that help in relaxation and fitness. The breathing exercises are collectively called as Pranayama.

Anuloma-Viloma pranayama, also called the alternate nostril breathing technique, is an incredible energizer, which works effectively to relieve stress and anxiety. Anuloma-Viloma cures blood pressure and diabetes, improves concentration, patience, and creativity. The traditional practice is mainly exercised for relaxation and strengthening of the mind and it also prepares the entire body for meditation. It also increases oxygen supply throughout the body.

Bhramari pranayama is the breathing exercise where the body makes vibrating sounds which are like the humming sounds made by honey bees. The most important benefit of Bhramari Pranayama is that it helps to relax the mind and helps to focus. The vibrations formed in the brain when doing the exercise helps in calming down the brain by letting go of unnecessary thoughts. The brain becomes clear and you get more space and time to think over your real problems. The exercise helps to reduce mental stress, tension and depression too.

Meditation is the practice of calming the mind, connecting with the body, and focusing on what is happening in the present moment. Some practices aim to alter our relationship to the thoughts and how they are perceived. By gaining a better understanding of thinking processes individuals are less dominated by thoughts both good and bad. By observing the thoughts, notification of habits and patterns that may previously have been unknown are exposed and this understanding then allows to make positive changes. The opposite of forgetfulness is mindfulness. Mindfulness is when

you are truly there, mind and body together. You breathe in and out mindfully, you bring your mind back to your body, and you are there. When your mind is there with your body, you are established in the present moment.

In the present study an experiment has been done by providing pranayama and meditation training to identify its effects on academic achievement and leadership of deaf and dumb children. This will help us in knowing further requirement of yogic interventions, promotional programmes, modifications needed in the existing or running policies for such differently abled children and increasing the effectiveness of the steps taken by the government and non-government bodies to improve the quality of life of deaf and dumb students**.**

1.1 Objective of the Study: The purpose of the study was to find out the effect of pranayama and meditation on academic achievement and leadership of deaf and dumb students.

1.1 Hypotheses: On the basis of available literature, research findings and scholar's own understanding it was hypothesized that there may be significant effect of pranayama and meditation on academic achievement and leadership of deaf and dumb students.

2. Methodology:

2.1 Selection of Subjects:

Fifty deaf and dumb male students (25 each in Experimental and Control group) were selected to act as subjects for this study of age ranging from 13-18 years from Deaf and Dumb school, Meerut (Uttar Pradesh). All the subjects were selected through simple random sampling technique.

2.2 Selection of Subjects

The following variables have been selected for purpose of this study

Independent Variables: 1) Pranayama (Anuloma-Viloma and Bhramari)
2) Meditation (Mindfulness)

Dependent variables- 1) Academic Achievement
2) Leadership.

2.3 Collection of Data:

A questionnaire method was employed to collect the relevant data of academic achievement and leadership of deaf and dumb students. The responses were tabulated and recorded as the raw scores for the analysis.

2.4 Experimental Design and Procedure:

The subjects selected for the present study were divided randomly into two equal groups called control and experimental consisting of 25 male students in each group. Twelve weeks (six days in a week) of pranayama and meditation training were given to the experimental group. The control group was not allowed to participate in any of the pranayama and meditation training programmes, except their routine schedule. Measurements for the psychological variables were recorded at the beginning of the training programme (pre - test) and after twelve weeks at the end of the experimental period (post - test). The data were collected for all the variables from both control and experimental groups.

2.5. Description and administration of Questionnaire:

Multi-Dimensional Assessment of Personality Series (MDAPS) developed by Sanjay Vohra was used to assess academic achievement and leadership of deaf and dumb children. The questionnaire was administered by the research scholar on all the subjects. All the subjects answered the questionnaire separately without consulting each other. The subjects were motivated to give the researcher unbiased and correct opinion. The scholar apprised the respondents that the information given by them would be kept confidential.

2.6. Statistical Analysis: The pre and post-test data were collected from the two groups on the selected variables and used for the statistical treatment to find out whether or not there was any significant difference between the two groups by the analysis of covariance (ANCOVA) method. The level of significance was tested at 0.05 level of confidence. All the statistical calculations were carried out using SPSS, 11.05 packages.

3. Result and Observation:

ACADEMIC ACHIEVEMENT

TABLE-1

Analysis of Covariance for Pre Test and Post Test Data on Academic Achievement of Control Group and Experimental Group

Test	Groups		ANCOVA					
	Control	Experimental	Source of variance	SS	df	MSS	F	Sig.
Pre -Mean	6.6800	6.5200	B	.320	1	.320	.075	.785
			W	203.680	48	4.243		
Post - Mean	6.9200	9.3200	B	72.000	1	72.000	16.836*	.000
			W	205.280	48	4.277		
Adjusted Post- Mean	6.868	9.372	B	78.194	1	78.194	30.431*	.000
			W	120.768	47	2.570		

*Significant at 0.05 level, B = Between Group Variance, W = Within Group Variance

From the Table-1 analysis of variance indicated that the resultant F-ratio of academic achievement (0.075) was insignificant in case of pre-test means of control and experimental groups from which it was clear that the pre-test means of control and experimental groups did not differ significantly and that the random assignment of subjects to the control group and experimental group was quite successful. The post-test means of the control and experimental groups yielded an F-ratio 16.836 which was significant at .05 level of significance.

Table 1 also revealed that the analysis of co-variance (ANCOVA) between the adjusted post-test means of control and experimental groups in relation to academic achievement (F= 30.431) was found significant as the p-value was lesser than .05 ($p<0.05$).

LEADERSHIP

TABLE-2

Analysis of Covariance for Pre Test and Post Test Data on Leadership of Control Group and Experimental Group

Test	Groups		ANCOVA					
	Control	Experimental	Source of variance	SS	df	MSS	F	Sig.
Pre -Mean	8.0400	7.4000	B	5.120	1	5.120	.734	.396
			W	334.960	48	6.978		
Post - Mean	9.7200	9.9600	B	.720	1	.720	.145	.705
			W	238.000	48	4.958		
Adjusted Post- Mean	9.538	10.142	B	4.496	1	4.496	1.632	.208
			W	129.453	47	2.754		

*Significant at 0.05 level, B = Between Group Variance, W = Within Group Variance

From the Table 2 analysis of variance indicated that the resultant F-ratio of leadership (0.734) was insignificant in case of pre-test means of control and experimental groups from which it is clear that the pre-test means of control and experimental groups do not differ significantly and that the random assignment of subjects to the control group and experimental group was quite successful. The post-test means of the control and experimental groups yielded an F-ratio 0.145 which was insignificant at .05 level of significance.

Table 2 also revealed that the analysis of co-variance (ANCOVA) between the adjusted post-test means of control and experimental groups in relation to leadership (F= 1.632) was also found insignificant as the p-value was greater than .05 ($p<0.05$).

4. Discussion & Findings:

The statistical finding here implied that the practice of pranayama and meditation had significant effect on academic achievement. The credit may be given to the attribute of meditation to sharpen the analytical and reasoning ability. It also helps in improving memory power of the students. On the basis of above findings the null hypothesis is rejected and alternate hypothesis is accepted which concluded that pranayama and meditation are beneficial to modify the academic achievement of the deaf and dumb students. The findings also support the study of Kumar Jitender (2012).
The statistical findings further clearly indicated that the practice of pranayama and meditation had insignificant effect on leadership. This may be due to absence of more relevant and effective factors in the treatment like communication skills, team building goal oriented tasks etc. Leadership is both genetic and environment into which genetics cannot be altered easily but positive and optimum environment may help in unlocking leadership qualities in the personality. On the basis of above findings the null hypothesis is accepted and alternate hypothesis is rejected which concluded that these yogic practices are not effective to alter the leadership of the deaf and dumb students. The findings also support the study of Ishwar, Bharadwaj and Nishad, Indrani (2010).

5. Conclusions:

On the basis of the results obtained and within the limitations of the present study the following conclusions may be drawn:

- It was reported from the results that academic achievement of deaf and dumb students in experimental group had shown significant differences in comparison to control group after twelve weeks of pranayama and meditation training. Thus it may be concluded that pranayama and meditation are beneficial for improving academic achievement of deaf and dumb students.
- It was reported from the results that leadership of deaf and dumb students in experimental group had shown insignificant differences in comparison to control group after twelve weeks of pranayama and meditation training. Thus it may be concluded that pranayama and meditation are not effective for developing leadership in deaf and dumb students.

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