

A Brain Stimulation Strategy For Developing Cognitive Skills Among Late Bloomer

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Abstract : *The intention of the present study is to test the effectiveness of Brain stimulating Yoga strategy for developing the Cognitive skills among Late Bloomers in school, for this investigator conduct an experimental study based on the Lesson Transcript. The major variables of the study is Cognitive skills and Brain stimulating Yoga strategy. The Independent variable is Brain Stimulating Yoga Strategy and dependent variable is Cognitive skills .the methodology is used Experimental, with Control and Experimental Group in 30 sample in each group. The main findings of the study is Brain stimulating strategy is effective for developing Cognitive skills among Late Bloomer*

Key Terms: *Late Bloomer, Cognitive skills, brain Stimulating and Yoga*

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I. Introduction

Everybody is a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid. These words from Albert Einstein a learning disabled student during school days. Everybody is a genius; but everyone has his own limitations. These can be overcome through education. Disabilities arise from neurological differences in brain structure and function and affect a person's ability to receive, store, process, retrieve or communicate information. Late Bloomer are as smart as or smarter than their peers. But they may have some limitation in their academic are during the school days such as reading, writing, spelling, reasoning, recalling and or organizing information if left to figure things out by themselves or if taught in conventional ways.

A late bloomer is someone who achieves their potential in some part of life later than their peers. A late bloomer is not a failure, he or she is just someone who succeeds later than others. There are many ways in which you're "blooming" could be delayed:

Educational late bloomer. This could mean that your grades at school are so-so until suddenly you blossom and outstrip many of the other kids in one set of exams. Maybe you were able to connect what you were doing in school to some goal later in life. Or, you were able to use what you were learning about to somehow make your life better in the moment. Whatever the case, you will be most likely to bloom in an educational setting if you're able to find meaning in what you're learning. When everyone else was racking up their firsts, the idea of making new friends and dating was foreign, perhaps terrifying, to you. That is, until one day you realize that talking to people isn't nearly as scary as it seems, and your social circle unfolds. In this context, through education a late bloomer can develop their academic performance. So Yoga is one of the best educational strategies for stimulating their Brain.

Cognitive skills refer to the abilities to gain meaning and knowledge from experience and information. Cognitive skills are basic mental abilities we use to think, study and learn. It includes: Attention, working memory, processing speed, long term memory, visual processing, auditory processing, logic and reasoning, concentration etc. The development of cognitive skills such as learning readiness, creativity, problem solving etc. rises more rapidly during primary school period. In the primary school period the child is thinking about everything and in a variety of new ways. In learning disabled students the cognitive skill may be less developed. Thus Yoga will help to improve their cognitive skill without any side effects.

Yoga asanas (postures) and pranayama (breathing exercises) adopted for disabilities like Warm-up asanas, strengthening asanas, release of tension asanas, calming asanas and breathing asanas. Hatha yoga is an ancient set of physical and mental practices designed to bring the body, mind and breath into balance. In the physical postures, called asanas, we gain control of the body by increasing flexibility, balance, strength, and motor coordination while toning muscle and nerve groups and benefiting the organs and endocrine glands. In the breathing exercises, called pranayama, we learn to breathe fully and efficiently, increasing oxygenation of the brain, the release of toxins from the body, and clarity and focus of mind. Yoga was first taught one on one to individuals in excellent health. Today, we know that yoga provides benefits to those of all physical conditions

and ages. Yoga for the Special Child offers the benefits of yoga to infants and children, both typically developing and those with special needs.

II. Significance of the study

Yoga is a scientific system of physical and mental practices that originated in India more than 3000 years ago. It's purpose is to help each one of us achieve our highest potential and to experience enduring health and happiness. Yoga works on many different levels; mind, body and breath and has shown itself as an effective therapy for learning disabilities.

Yoga works by using gentle postures that work with the body to enable the child to gain their maximum potential over a series of sessions. It helps these children to improve on their basic motor, communicative and cognitive skills. The yoga routines also help late bloomers to develop greater concentration, balance and posture.

Yoga is a form of mind-body fitness that involves a combination of muscular activity and an internally directed mindful focus on awareness of the self, the breath, and energy. Four basic principles underlie the teachings and practices of yoga's healing system. The first principle is the human body is a holistic entity comprised of various interrelated dimensions inseparable from one another and the health or illness of any one dimension affects the other dimensions. The second principle is individuals and their needs are unique and therefore must be approached in a way that acknowledges this individuality and their practice must be tailored accordingly. The third principle is yoga is self-empowering; the student is his or her own healer.

Yoga can help these children to improve:

1. Communication
2. Cognitive skill
3. Greater concentration and attention span
4. Fine motor coordination
5. Hand to eye coordination
6. Self-esteem
7. Co-ordination of body and mind

In this context investigator identified Yoga is one of the Best Brain Stimulating strategy for the law achievers from the begging of their education. Moreover the investigator as a Teacher Educator Based on the experience the investigator is interested to develop a yoga programme especially for law Achievers. Investigator think that this programme will help those students to develop their cognitive skills such as memory, concentration, attention, logic and reasoning power. So it is motivated to take up a study about the effectiveness of yoga –Brain Stimulating Strategy for developing cognitive skills among Late Bloomer

Definition of Terms

Late bloomer is a person who appears to be of average ability throughout childhood and often into adulthood (Bainbridgr,2015) Or late bloomer is someone who achieves their potential in some part of life later than their peers. A late bloomer is not a failure, he or she is just someone who succeeds later than others. There are many ways in which you're "blooming" could be delayed: present paper investigator considered the learning disabled and low achievers as late bloomer

Brain stimulating Strategy. Brain stimulation means encouragement of brain to make it develop or become more active. so In the present study investigator decided different Yoga asanaas such as padmasana, vajrasana, salabhasana, thalassana, and certain breathing exercises exclusively for Brain stimulation.

Cognitive skills Cognitive skills are based on particular brain structures that help us to learn, concentrate, remember and solve problems. In the present study Cognitive skill involves Attention, Memory, Concentration, Logic and Reasoning.

Objectives

To test the effectiveness of Brain stimulating Strategy for developing Cognitive Skills among Late Bloomers compared to conventional methods of classroom teaching

Hypothesis

Brain Stimulating Strategy is effective for developing cognitive skills among Late Bloomers compared to conventional methods of classroom teaching

III. Methodology

The objective of the present study is to find out the effectiveness of brain stimulating yoga Strategy among learning disabilities for developing cognitive skills compared to general yoga practices. In the present study, the investigator adopts quasi-experimental method with non-equivalent pre-test post-test design. Experimentation is the most sophisticated, exact & powerful method for discovering & developing & organized

body of knowledge.

Sample for the study

Sample is the set of data selected from a statistical population by defined procedure. In the present study investigator adopts simple random sampling technique and selects 60 students as the sample. The investigator selects learning disabled students from the upper primary classes. Then classifies them into experimental and control group. The investigator selected 60 learning disabled students from upper primary classes. (Experimental group: 30, Control group:30)

Tools and techniques used for study

- a) Cognitive Skill Assessment Test
- b) Lesson Transcript based on Brain stimulating Strategy

RESULTS AND DISCUSSION

Investigator analyzed data after the intervention in the classroom using lesson transcript based on the Yoga – Brain Stimulating Strategy among Late Bloomers for developing the Cognitive skills .for this investigator compare the posttest scores of between Experimental and control Group using t test and Test the effectiveness using ANCOVA and adjusted mean following tables shows the results

Table 1 Test of significance of the difference between post-test scores in the Cognitive skill assessment of the Experimental Group and Control Group.

Group	No. Of Students	Mean	Standard deviation	Critical Ratio	Level of Significance
Experimental	30	16.33	2.005	15.16	Significant at 0.05 level
Control	30	9.36	1.51		

The table 1 indicates mean scores of the experimental group and control group is 16.33 and 9.36 respectively. The critical ratio obtained is 15.16 which is greater than the table value 1.96 at 0.05 level of significance. Since the mean of the experimental group is greater than that of the control group. It is inferred that experimental group is better than the control group. Hence, it indicates that there is significant difference between the cognitive skills of students who practiced brain stimulating yoga strategy. So it can be tentatively concluded that there is greater improvement in cognitive skill of experimental group through practicing brain stimulating yoga strategy.

Comparison of pre-test post-test scores of cognitive skill assessment of pupils in the experimental group

The obtained pre-test and post-test scores by the Experimental group in the Cognitive skill Assessment was compared by testing the significant difference between the pre-test post-test scores using the paired ‘t’ test.

Table 2 Data and Results of test of significance of the pre-test post-test scores in Cognitive skill Assessment of Experimental group

Experimental Groups	No. of Students	Mean	Standard deviation	r	t value
Pre-test	30	19.13	3.88	0.666	44.30
Post-test	30	43.0	3.19		

The obtained t value is 44.30 which is greater than the table value 1.96 at 0.05 level of significance, that means there is a significant difference between the means of the pre-test and post-test scores of the students in the experimental group. That means after the intervention of Brain Stimulating Yoga Strategy student gain more score compared to pre-test.

Table 3 Summary of Analysis of Co-Variance of pre-test and post-test scores of pupils in Experimental group and Control group

Source of variance	df	SSx	SSy	SSxy	SSyx	MSyx	SDyx	Fyx
Among Means	1	.27	728	13.93	709.43	709.43	1.37	
Within the group	57	189.07	183.6	120.07	107.39	1.88		376.56
Total	58	189.33	911.7	134	816.81			

The comparison of Fyx ratio was tested for significance. The F value of the ratio between among means and within groups is 376.56 which is greater than the table value 4.00. It is clear from value that the two final means which depends upon the experimental and control group differ significantly after they have been adjusted for initial difference in the pre- test scores.

Comparison of Adjusted Y Means

The adjusted means for post-test scores (Y means) of the pupil in the Experimental and control group were computed using correlation and regression. The difference between the adjusted Y means of post-test scores of pupils in the experimental group and control group are given in the table 4

Table 4 Comparison of adjusted Means of Post-test Scores of Pupils in the Experimental group and Control Group.

Groups	No. of Students	Mx	My	Myx (adjusted)
Experimental group	30	6.73	16.3	16.29
Control group	30	6.60	9.4	9.41
General mass	60	6.67	12.85	

S.Em between the adjusted mean = 0.35, $t = 19.42$

The difference between the adjusted means of post-test scores of students in the experimental group and control group were tested for significance. The calculated difference between the adjusted Y means is 19.42 which is greater than the table value 1.96 at 0.05 levels. The difference between the adjusted Y means indicated that the students in the experimental group differ significantly in their cognitive skill in the post-test. Thus the pupil practices brain stimulating yoga strategy is better than those learned by the general yoga practices. From the result it can be interpreted that Brain Stimulating Yoga Strategy Is an Effective Strategy for Developing Cognitive Skills among Late bloomers in schools..

IV. Educational Implications

The present study was concluded in such a way that the brain stimulating yoga strategy is more effective than the general yoga practices for learning disabled students. The findings of the study emphasizes the importance of Brain Stimulating Yoga Strategy for the development of cognitive skills among Late bloomers

1. The cognitive skills are high for the Late bloomers who are practicing Brain Stimulating Yoga Strategy than the students who are practicing general yoga practices. An improvement in Cognitive skill will improve their learning process.
2. Brain Stimulating Yoga Strategy makes physical and mental coordination among Late bloomers students which will help to increase the physical activities like holding of pencil, writing, drawing, manipulation of fingers, etc.
3. Brain Stimulating Yoga Strategy gives mental stability which stimulate the Central Nervous System. It makes students self-confident and more attentive in classrooms.
4. In Brain Stimulating Yoga Strategy, several breathing exercises such as Anulom-vilom, Bhramari, etc. will help to control and regulate the breath of learning disabled students. Thus it will increase the flow of oxygen level and it leads to the well-functioning of brain and other organs.

V. Conclusion

The investigator expects that more follow up studies will be conducted in this area to substantiate and generalize the findings of the present study. The investigator feel gratified if the findings of the study lead to a better understanding of the teaching-learning process and motivate the researcher to undertake further studies.

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