

Comparative Study of Selective Attention: Yogic and Modern Education System

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Abstract:

Attention is the behavioral and cognitive process of selectively concentrating on a discrete aspect of information, while ignoring other perceivable information. Selective attention is simply the act of focusing on a particular object for a period of time and cumulatively ignoring irrelevant informations that are also occurring. The present research paper is an effort to investigate the difference of Selective attention between students of Yogic Education System (YES) and Modern Education System (MES). The sample consisting of 60 intermediate residential students from both the education system was randomly selected. Sample was matched on the basis of academic, age range and socio-economic status. For measuring Selective Attention ‘Stroop Test’ was used. In order to find out the difference between two groups, analysis of variance (ANOVA) was applied. The findings of present research show that the obtained value of ‘f’ for Education system on Selective Attention, irrespective of their gender, was found to be 32.32 which is significant at 0.01 ($p < 0.01$) level. So, there is significant difference between students of yogic and modern education system on Selective Attention. The value of ‘F’ for the interaction effect of education system and gender on selective attention came out to be 2.60 which is no significant at 0.05 ($p > 0.05$) level. So, that there is no significant interaction effect of education system and gender on Selective Attention.

Key words: Yogic education system, Modern education system, Selective attention

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Introduction:

Education is the process of development of the child or the individual. It is a lifelong process. Education tries to develop the innate potentialities of the individual in a harmonious manner. Education leads to harmonious development of all the powers of the human being i.e. physical, social, cultural, intellectual, aesthetic and spiritual.

Thus, education is intimately connected with the life and experience of an individual.

One of the very important and primitive education systems in India is the yogic education system. This is the oldest system of education in the Indian culture of Vedas. Its curriculum includes mainly yoga asanas, pranayama, (breathing exercises) meditation,

mantra recitation, devotional songs, puja, and yogic games. The key features of yoga based life style are **Yama** (Social disciplining), **Niyam** (self disciplining), **Asanas** (physical postures): which produce relaxation at a bodily level, **Pranayama** (voluntary regulation of breathing): which is designed to calm down the breath, **Pratyahar** (Control of senses and mind), **Dharana** (concentration) Yogic prayers and Puja: which balance the emotions, **Dhyana**: (Meditation): generally understood as an internal Jape or repetition of a Mantra which calms the mind and **Samadhi** (super conscious). It is a learning system based on yogic practices of the Vedas (Nagendra, 2005). Yoga is a mental, spiritual and physical discipline for achieving union and harmony between our mind and body (Rocha, et al., 2012). Therefore yogic system is used as method and technique for the attainment and improvement in health, as well as for physical, cognitive and spiritual harmony. The science of yoga is a powerful stream of knowledge, which enables the practitioners to achieve radiant physical health, serene mind and continuous spiritual uplift and creates the ability for harmonious social living (Yogacharya, 2005). Some of the studies revealed that yoga is an effective tool in improving quality of life by reducing depression, stress and anxiety (Smith, et al., 2007). “Thus Ashtanga yoga is a technology for the development of the physical, mental, intellectual and spiritual faculties in man making him a fully integrated human personality” (Goal, 2007).

Modern Education System lays emphasis on the subjects like freedom, nationality, law, human rights, democracy and scientific world view. The other parts of education are the co-curricular and extra-curricular activities, which are often organized for total personality development of a student. The modern education system has opened up a multiplicity of occupations and professions and each one of them is associated with scientific knowledge and skills. It makes students a good human being and a responsible citizen. The modern education fulfills needs of the industrial economy. A vast range of subjects like medicine, health, engineering, management and law have become warm areas of professionalization and specialization today.

Cognitive is the mental activities associated with consideration, perception, memory, attention, decision making, language and other higher mental processes. Attention is a general term that describes a person's ability to focus on a task. Attention is a vital skill that significantly affects a person's ability to complete daily tasks safely at the personal and the professional front. Selective attention is simply the act of focusing on a particular object for a period of time while simultaneously ignoring irrelevant information that is also occurring. It is impossible to give attention to every stimulus in our environment; we use selective attention to select what stimuli are important as events occur. Many scientific studies have proven that yoga is effective to improve various cognitive functions such as remote memory, mental balance, attention

and concentration, attention span, processing speed, attention alternation ability, delayed and immediate recall, decision-making, verbal retention and recognition tests in the healthy young subjects (Chatha, et al., 2008 & Prakash, et al., 2010). Similarly, modern education system and Gurukula education system improve selective attention in school children, but Gurukula education system is more effective (Rangan, Nagendra & Bhatt, 2009). Research suggests that this type of coordinated exercise may lead to increases in attention (Budde, et al. 2008). A study emphasizes the combined application of the physical and mental training make a better performance for improving the selective attention (Hawkins, Kramer & Capaldi, 1992). Several studies have been published analyzing the effect of different aspects of Yoga including physical postures and meditation on Selective Attention. In another study, it was found that children who had high levels of aerobic fitness had an increased processing speed, attention, working memory, and response speed (Hillman, et al. 2005, Budde, 2008) found that 10 minutes of coordinated exercise compared to 10 minutes of a standard physical fitness course had a statistically significant effect on raising scores of selective attention. A study, physical activity has been demonstrated to have a positive effect on various cognitive functions. (Masoumeh & Shahin, 2012).

Need of the Study:

Yogic education system is very important for our healthy life. Its goal is to make an individual a perfect human being. It is the

key to solve the various problems of life. It is meant for the harmonious development of the physical, mental, moral, spiritual and social faculties, the five dimensions of life. Students need yoga to improve their attention and enhance their ability of thinking, memory and comprehension. Yoga is helpful to students in improving their attention, intelligence, creativity, academic performance, self-concept, perception, confidence, positive attitude, memory and mental health. Yoga also decreases stress and anxiety and other psychological and physiological problems. It helps to bring about a greater focus in one's routine activities. Yogic Education System helps students to develop qualities like industriousness, courage, fortitude, intelligence, strength and bravery spontaneously so that they can get success in every field. The present study underlies the effects of education system on intermediate students. Therefore this study is an effort to study the difference of Selective Attention between students of Yogic and Modern education system.

Objective:

To study the difference between students of Yogic (Gurukul) and Modern Education System on Selected Attention.

Hypotheses:

1. There is significant difference between the students of Yogic and Modern Education System on Selective Attention.
2. There is no significant effect of gender on Selective Attention.

3. There is no significant interaction effect of Education System and gender on Selective Attention.

Sample:

In the present research 60 residential students, who were pursuing Intermediate from Yogic (15 boys and 15 girls) and Modern (15 boys and 15 girls) education system were randomly selected. Their age range was between 16 to 18 years. The sample was matched on the basis of age, education and socio-economic status. The Sample was selected from Agra and the adjacent areas.

Tool:

Selective Attention was measured by a Stroop Test, constructed by researchers

themselves. There were three cards and each was having 40 items. The first card examines how fast the participant can read words, the second card tests how fast the participants can name the colors on the card, and in the third card the participants were asked to name the color of the ink in which the words are printed in, ignoring the word that was print for each item. The task was administered individually. Total 10 colour names were used. The task is to look at each card, and move down the columns, naming the ink colours, as quickly as possible, within a given time limit.

Statistical analysis of data:

Analysis of variance (ANOVA) was used in the present research.

**ResultTable: 1 Effect of Education System and Gender on Selective Attention (in seconds):
Interaction Table of Group Means**

| Second IV (b) Gender | (b1) Girls | (b2) Boys | Sum |
|------------------------------------|-------------------|-------------------|---------------|
| First IV (a) Education system | | | |
| (a1) Yogic Education system | 36.73 (N = 15) | 35.33 (N = 15) | 72.06 |
| (a2) Modern Education System | 56.53 (N = 15) | 70.80 (N = 15) | 127.33 |
| Sum | 93.26 | 106.13 | 199.39 |

Table -2 ANOVA

| Tests of Between- Subjects Effects | | | | |
|---|------------|----|-----------|---------|
| Dependent Variable: – Selective Attention | | | | |
| Source | SS | df | MS | F |
| ** Education | 11454.017 | 1 | 11454.017 | 32.32** |
| Gender | 620.817 | 1 | 620.817 | 1.75 |
| Gender x Education | 920.417 | 1 | 920.417 | 2.60 |
| Error | 19846.400 | 56 | 354.400 | |
| Total | 181943.000 | 60 | | |
| Corrected Total | 32841.650 | 59 | | |

Education system = ($p < 0.01$) level.

Gender effect = ($p > 0.05$) level.

Interaction effect of education system and gender = ($p > 0.05$) level.

Results:

Mean and Analysis of variance (ANOVA) were calculated. It reveals that calculated value of ‘F’ for main effect of education system on selective attention between the students of yogic and modern education system came out to be significant at $p < 0.01$ ($F = 32.32$) level. It indicates that, there is significant difference between the students of Yogic and Modern Education System on Selective Attention. Further it shows that the obtained value of ‘F’ for main effect of gender on selective attention between students of yogic and modern education system came out to be no significant at $p > 0.05$ ($F = 1.75$) level. It indicates that there is no significant difference between the both genders on selective attention. The

interaction effect of education system and gender on selective attention found to be not significant at $p > 0.05$ ($F = 2.60$) level. Thus, interaction effect between students of education system and gender has no significant effect on Selective Attention. This result interprets that the group who has taken less time period in response of Stroop test were better in selective attention. This way yogic education system has better selective attention as compared to modern education system.

Discussion:

The finding of the present study reveals that yogic and modern education system is differed significantly on the basis of selective attention. The time taken in

selective attention by yogic education system was less than modern education system, which signifies that the students of yogic education system are better in selective attention as compared to modern education system. Holistic personality development is achieved through repetitive recitation of yoga practices. Yoga practices are highly rhythmic and fill the body uniformly with their resonance. Therefore it incorporates the notion of "freedom from distractibility." The finding of the present study is consistent with some of the others studies regarding the relationship between yoga and attention. Sahasi, (1984) found significant improvement in attention and concentration scores after yoga intervention. Valentine and Sweet (1999) and Sahu and Bhole, (1983) found that there were statistically significant increase in attention test scores after both a mindfulness meditation and concentrated meditation session. Manjunath, et al. (1999) reported an improvement in attention of 14 children (Aged 12-17 years), who received ten days yoga training. Kory and Hufnagel, (1997) found growth of intelligence and better academic performance among school students, practicing transcendental meditation (TM). Naveen, et al. (1997) found that voluntary regulation of breathing (Pranayama) improves memory. Telles, et al. (1993) studied special physical postures

(asanas), voluntary regulation of breathing (pranayama), maintenance of silence, and visual focusing exercises, improves the attention span in school children. Bhavi and others (1996) found a significant improvement in mental health following regular yogic practices. Masoumeh, & Shahin, (2012) and Hawkins, Kramer & Capaldi, (1992) found that practicing physical activity can have a positive effect in cognitive functions. Thus, meditation, physical exercise included in yoga practice, has been shown in the literature to have a positive effect on attention. The finding of the present study also indicates that the students of yogic education system are better in selective attention than modern education system.

Conclusion:

From this present study it can be concluded that the students of Yogic education system has better selective attention and yoga practices improve the selective attention of its practitioners without any gender difference. It may be inferred that the different aspects of yogic system as, Yama, Niyam Asanas, Pranayama, meditation etc. may contribute positively for the development of cognitive dimensions of an individual.

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