

Impact of Prayer and Yoga on the Vigilance of Summer Camp Children

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ABSTRACT

The aim of the present study was to investigate the impact of summer camp environment on the vigilance of the candidates. The sample consisted of 29 children attending summer camp, at Adanbagh branch, Dayalbagh Agra. Their age range is in between 11-15 years and they belong to urban area. They stayed in summer camp hostel for 20 days. The Bourdon - Wiersma vigilance test was used to generate data. The researcher used Wilcoxon - T test for data analysis. Results indicate that there is no significant difference (z -values = -0.328, -0.297 and 0.048 respectively, where $p > 0.05$) between pre and post measures of vigilance (Total responses, correct and error responses) for the candidates attending summer camp. This means that although the impact of summer camp environment is reflected in mean scores of pre and post measure of vigilance but the difference is not significant enough to generalize the results.

Keywords: *Vigilance, Yoga, Prayer*

In modern psychology, vigilance, also termed sustained attention, is defined as the ability to maintain attention and alertness over prolonged periods of time. During this time, the person attempts to detect the appearance of particular target stimulus. The individual watches for a signal stimulus that may occur at an unknown time. The study of vigilance has expanded since the 1940s mainly due to the increased interaction of people with machines for applications involving monitoring and detection of rare events and weak signals. Such applications include air traffic control, inspection and quality control automated navigation, military and border surveillance, and lifeguards. The prototypical task for vigilance research was that of radar operators. Historically, their apparently unsatisfactory performance during the Second World War has been a major impetus for the extensive study of vigilance. Another major task requiring vigilance is industrial inspection. More generally, all kinds of monitoring tasks which require the detection of relatively infrequent signals embody the risk of failures to detect and to respond to these critical events. Research on vigilance also gives an insight into the fact whether the individual can enhance his/her consciousness level or not as this also exposes the level of concentration an individual can have.

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In vigilance study by Davies and Tune (1969), activities involve continuous application of extensive cognitive resources. If the vigilance decrement were Stressful the result of less brain activity rather than more is expected, vigilance tasks could not be expected to be stressful. High levels of epinephrine and norepinephrine are correlated with continuous extensive mental workloads, making these compounds good chemical indicators of stress levels. Subjects performing vigilance tasks exhibit elevated levels of epinephrine and norepinephrine, consistent with high stress levels and indicative of a significant mental workload. Vigilance tasks may therefore be assumed to be stressful, hard mental work.

Justification of the Problem

This study is related to children's vigilance, through this study the researcher wants to see the improvement brought by prayer ,yoga and other camp activities on the vigilance of the candidates attending the summer camp. Prayer and yoga both give relaxation to our mind and body, prayer may involve the use of words or song and by this expression of thoughts showing gratitude towards God. It gives peace to our mind, and yoga a system of meditation or contemplation with the aim of the mental activity and the attaining of a "Supreme state" also energises our physique and reduces feeling of stress.

Today children involve in many activities and tasks together but they sometimes are not able to give proper attention on any one task, due to lack of concentration power. Summer camp activities such as prayer and yoga give relaxation to our mind or body, and the individual becomes healthy to function well. This enables to concentrate better on the task at hand and also improves the overall well-being of the child. The researcher was interested in finding out if any improvement could be made in the vigilance of children attending summer camp by considering the camp activities as intervention.

METHODOLOGY

Sample

Inclusive criteria: The study is conducted on 29 children attending summer camp, at Adan Bagh branch, Dayalbagh Agra. Their age range is in between 11-15 yrs and they are from urban area. They were given an orientation for the yoga technique and its benefits. They stayed in the summer camp hostel for 20 days. The campers were free from illness and did not complain of any major health problem. Their medical fitness test was conducted at the beginning of the camp.

Exclusive criteria: children above 15 yrs and below 11 yrs are not included in the study. Those candidates who left the summer camp hostel due to some or the other problem i.e. home sickness were excluded from the data.

Tool

Bourdon-Wiersma vigilance test: This test is used to measure perceptual speed and perceptual accuracy indicating vigilance of subjects. The test consists of 50 rows of groups of 3, 4 or 5 dots with 8 groups of 4 dots in each row. The task is to strike out the groups of 4 dots in each row as accurately and quickly as possible within 10 minutes time. The test is sufficiently reliable and valid and used for various researches earlier.

Procedure

First the researcher built a rapport with the subjects. Then as a part of the pre measure of the study, Bourdon-Wiersma vigilance test was administered by the researcher on the subjects. After 20 days intervention a post measure was taken and then both the scores are compared.

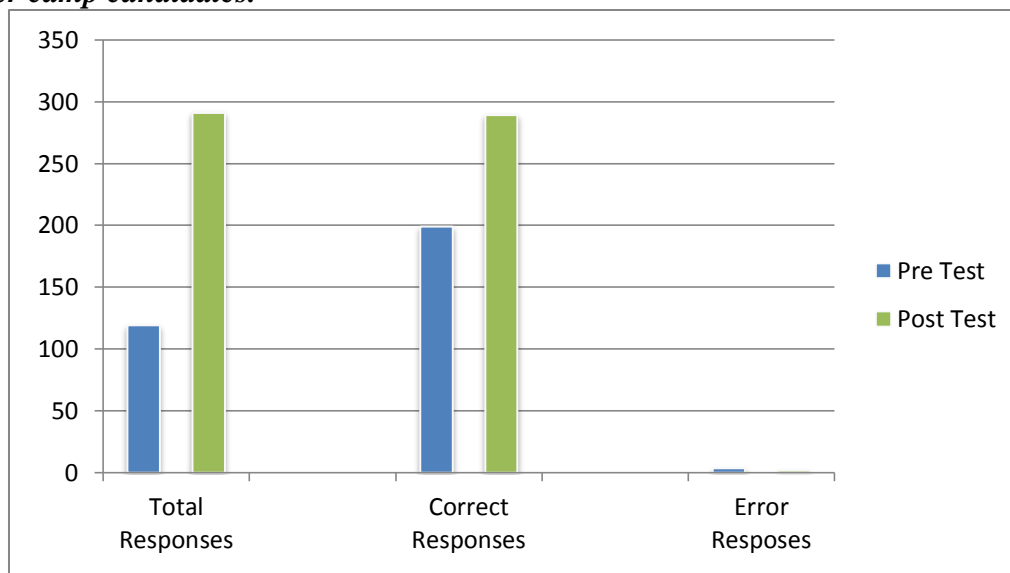
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The conditions for the pre and post measure were maintained the same. The schedule and environmental conditions were maintained similar for all the candidates throughout the camp. The time of the test was maintained the same i.e. 6:00 am.

RESULTS

The statistics employed in this research a single group pre and post measure design is used study include Mean, SD and Wilcoxon –T test, to know the significance of difference in the pre and post measure of vigilance scores of the candidates attending summer camp.

Figure 1 Bar diagram showing mean scores on vigilance for pre and post test of the summer camp candidates.



This is also evident from the bar diagram in Figure 4.1 where the bar for the post test (correct responses) is higher than the pretest. In connection to this, the mean score for error responses in pretest is 3.79 and in posttest is 1.79 where there is a decrease in the errors, also indicated by the bars of errors in Figure 4.1 as the bar for posttest is lower than the pretest.

Further, to test the significance of this difference in mean scores, Wilcoxon –T was calculated for the scores of Total, correct and error responses, which are presented in Table 4.2.

Table 1 Summary of Z-Values for the vigilance (Total, correct and error responses) of the summer camp candidates.

Measures of Vigilance	Z-Values	Level of Significance
Total Responses	-0.328	$p > 0.05$
Correct Responses	-0.297	$p > 0.05$
Errors Responses	0.048	$p > 0.05$

It can be observed from Table 4.2 that z observation of Total Responses is **-0.328**, Correct Responses is **-0.297** and Error Responses is **0.048**. Since the absolute values of z- observed for all three measures of vigilance are less than the table value of z critical =1.96 where $p > 0.05$, we reject the hypothesis and conclude no significant difference is brought about by the summer camp environment on the vigilance of the candidates attending it.

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Thus, with the above stated results, the comparison and analysis of all the combinations was done and the interpretation of the scores was also extracted.

The central focus of the present study was concentrated in finding out whether there is a difference between pre and posttest on vigilance. Showing an impact of summer camp environment. Analysis of the data and interpretation of the results of the present study leads to the following findings and conclusions that may be summarized;

Findings

There is no significant difference between the pre and post measure of vigilance scores (Total, correct and error responses) of the candidates attending summer camp. Thus the hypothesis is not found true, and is rejected.

DISCUSSION

In a study **Olson and Janes (2006)** hypothesized that people are 'vigilant' for difference between stimuli. Results show that unexpected differences were rated as more surprising than unexpected similarities for positive and negative events. We can support our findings with this as the test might have turned out to be an unexpected similarity so it was not all that surprising to make the candidates more vigilant.

The subjects age group is such i.e. 11-15 yrs that the distracters in the environment i.e. any sound, smell etc. may effect the vigilance measurement as they may find it difficult to maintain attention and alertness during the test. The time duration in between the pre and post measure was very less and the impact of the scheduled activities during the summer camp was not very clear, although the mean scores did reflect an increase in the response scores. To support this as stated earlier in the text during introduction of the concept vigilance tasks may be assumed to be stressful, hard mental work (Davies and Tune,1969) therefore individuals not comfortable performing under stress will definitely get distracted leading to lower performance than the expected.

Apparently, large individual differences in monitoring task performance are also associated with vigilance measurement. So, it is possible that some of the candidates might get distracted when they find that the investigator is observing them perform the task. In addition to this Levine et al (2001) proposed that individual differences in task performance may be influenced by task demands and since vigilance invites mental work rather than passive activity therefore, task performance difference are evident which can be a possibility in the current investigation.

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Conflict of Interest

The authors carefully declare this paper to bear not conflict of interests

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