

An Experiment on School Students Fatigue

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Abstract:

In India day by day human life is becoming competitive and busy. The children and students of School College are facing daily tight and hectic schedule to develop their career. Educational pursuits can provide a solid foundation for students to prosper in future professional careers. More than one in 10 students sought counseling at school, college and university counseling centers in the 2008–09. The highest proportion found in center directors' reports that students are showing more serious psychological problems, including severe depression, anxiety and suicidal ideation. This is the burning problem in students and it is cannot ignored. Whatever the reasons of fatigue in student, but it is dangerous and harmful for the health of the students. The result of this study infers that kho-kho exercises helps for the selected psychological variable.

in case of experimental group mean scores of pre and post test of multiplication test of fatigue were 14.2133 (SD .70685) and 14.6067 (SD .59186) respectively, whereas, the mean difference was -.39333 and the 't' values was -6.302 which was significant ($p < 0.05$). It reflects that the mean score of pre and post test of experimental group was differ significantly. The post test of multiplication test of fatigue, is gives the positive marks by improving significant difference in the mean scores of experimental group. This piece of research is helpful in removing school students fatigue and its interpreting positive result in improving student's psychological health, so this result helps to interpret that the kho-kho exercises is effective for removing the fatigue of the school students in Mumbai. In this context the null hypothesis H_0 . 1 that "There is no significant difference in mean score of multiplication test of fatigue of control and experimental group" is rejected and the objective "To Compare the mean gain score to Fatigue as measured by Multiplication Test of girls aged 12 to 14 years" was achieved. This experimental study suggests that daily kho-kho exercises helps to remove the Fatigue of the school students in Mumbai.

Introduction

In India day by day human life is becoming competitive and busy. The children and students of School College are facing daily tight and hectic schedule to develop their career. Educational pursuits can provide a solid foundation for students to prosper in future professional careers. However, during academic preparation, students are faced with a variety of daily tasks and challenges that can be difficult to deal with. One of the problems that can occur from the constant grind for academic development and this task is a reason of fatigue. Students are suffering by a new trend of heavy home works. Experts recommend that students receive approximately 10 to 20 minutes of homework per night in the first grade, and an additional 10 minutes per grade level from then. But the situation is deferent. Each and every day a heavy academic home work is given by teachers to the students. Due to this all, students are facing psychological problems like tress anxiety and fatigue. Many researches revels that, the heavy daily academic schedule, extracurricular activities and after school jobs are the main reasons of stress and fatigue in school students. This indicates that the gravity of psychological condition of the children is poor; therefore it felt necessary to undertake a research project in the area of psychological fitness of the students of school and college to improve the decline status of psychological fitness through various exercises. After various related literature, the researchers found that various researches were conducted on fatigue but

Kho-Kho exercises on fatigue of school going girls are meager. So it was felt necessary to conduct a research study and study the effect of kho-kho exercises on school going girls on psychological variables like stress and fatigue.

What is Fatigue?

The decreased capacity or complete inability of an organism, an organ, or a part to function normally because of excessive stimulation or prolonged exertion means metal fatigue and it's caused by repeated cycling of the load. It is a progressive localized damage due to fluctuating stresses and strains on the material. Mental fatigue cracks initiate and propagate in regions where the strain is most severe.

Methodology

The purpose of this investigation was to collect the information regarding the impact of Kho- Kho exercises on psychological variables like fatigue of school students. The methodology followed to conduct this experiment is presented below.

Sixty girls students (n = 60) of aged 12 to 14 years from Shree Chandulal Nanavati Vinay Mandir In Mumbai were randomly selected for this investigation. The selected sixty girls students were randomly assigned into two equal groups viz., the control group (Group A; $n_1= 30$) and the experimental group (Group B; $n_2 = 30$) for the experiment. Daily one hour Kho-Kho practice was given in morning for eight weeks to the experimental group except Sunday and holiday. During this treatment or training control group did not participate in Kho-Kho. Both groups were not controlled for their daily activity.

Design of the study

This investigation was divided in to three phases.

- Phase I- Pre test
- Phase II – Treatment or training for eight weeks
- Phase III- Post test

Phase I- Pre test

All the subject of control group and experimental group were tested by the multiplication test of Fatigue, before the pre test all the necessary instruction were given to all the participants.

Multiplication test

The column of digits as shown in the margin, the first digit is to be multiplied by the seconds, $8 \times 3=24$. The first digit is to be multiplied by the third number of columns thus, $4 \times 9=36$. The unit's digit of this result is now multiplied by the fourth numbers, namely $6 \times 7=42$. The units of this are now written down besides the number 7. After this student will get back and starts with seconds' number of the column namely 3, and multiplies it by the succeeding number 9, thus $9 \times 9=81$. The units' digit 1 is now written down beside the 9. Then again students will get back and start with the third number 9 and proceed in the same way.

The column will now appear as shown in the margin. The subject should proceed in this manner till he reaches the bottom of a column and then he should start fresh with the next second column. One special case must be mentioned. Where the numbers to be multiplied happens to be 0, it should be substituted.

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This procedure gives a considerable amount of mental work and physical work. Subject is to do this work for 20 min. researcher gives a signal to start; at the end of each minute researcher give some signals, after which subject should make some sign on the sheet to show the work done during each able minute work period. After a period of 18 minutes, Researcher should 'say only 2 minutes now' and after 19 minutes he should say 'only 1 minute is remaining now'

Count the numbers of digits multiplied in each work period and also counts the numbers of errors in each work period.

Dependent variable

The following psychological variable was selected as a dependent variable.

Variables	Test	Unit
Fatigue	Multiplication test	Numbers

Phase II – Treatment or training for eight weeks

After review of various related literature the following independent variables were selected for the experiment.

Independent variable

1. Single chain
2. Single kho
3. Tapping
4. 3-6 up chain
5. 1-4-5-6 up chain
6. 90⁰ corners dodge (long ring)
7. Short ring
8. Path covering

Phase III- Post test

All the subjects of control and experimental group were again tested of the same variable like pre test

Statistical procedure

As per the research design the collected data were analyzed employing with standard statistical technique 't' test. Further the result have been interpreted and discussed logically to conclude this investigation by Table and graph.

Group viz., N, Mean, Standard Deviation, Mean deference and 't' value of Fatigue

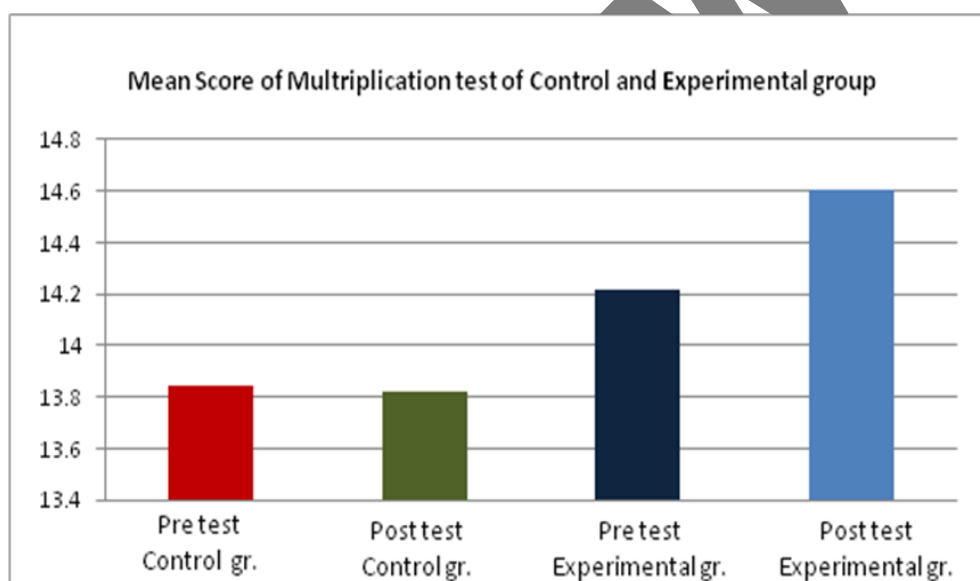
Group	N	Mean	Std. Dev.	Mean deference	't'	Sig. (2 tailed)	Remarks
Control group Pre test	30	13.8450	.72699	.02500	.148	.883	p>0.05
Control group Post test	30	13.8200	1.07315				

Experimental group	Pre test	30	14.2133	.70685	-.39333	-6.302	.000	p<0.05
	Post test	30	14.6067	.59186				

Result of multiplication test (Fatigue)

It is seen from the above table, in case of pre and post test of control group (multiplication test) the mean scores were 13.8450 (SD .72699) and 13.8200 (SD 1.07315) respectively, whereas, the mean difference was .02500 and the 't' values of pre test was .148. This result indicates that the pre and post test means of control group in multiplication test was more or less similar, which was not significant ($p > 0.05$). It reflects that the mean score of pre and post test of control group was did not differ significantly.

But in case of Experimental group, the mean scores of pre and post test of multiplication test were 14.2133 (SD .70685) and 14.6067 (SD .59186) respectively, whereas, the mean difference was -.39333 and the 't' values of post test was -6.302. Its reflects that the mean score of pre and post test of fatigue of experimental group were differ significantly. This same result is also presented in following graph.



Discussion

More than one in 10 students sought counseling at school, college and university counseling centers in the 2008–09. The highest proportion found in center directors' reports that students are showing more serious psychological problems, including severe depression, anxiety and suicidal ideation. This is the burning problem in students and it is cannot ignored. Whatever the reasons of fatigue in student, but it is dangerous and harmful for the health of the students. The result of this study infers that kho-kho exercises helps for the selected psychological variable.

The data of pre and post tests of control group were 13.8450 (SD .72699) and 13.8200 (SD 1.07315) respectively, whereas, the mean difference were .02500 and the 't' values was .148 which is not significant ($p > 0.05$). It reflects that the mean score of pre and post test of control group was do not differ significantly. This result indicates that the pre and post test mean score of Control group in multiplication test of fatigue is more or less similar.

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Conclusion

This experimental study suggests that daily kho-kho exercises helps to remove the Fatigue of the school students in Mumbai.

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