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EFFECT OF RELAXATION EXERCISES ON SECONDARY STUDENTS' ACCOMPLISHMENT IN MATHEMATICS EXAMINATION

K. AMUTHA *& M. VAKKIL**

*Ph. D Research Scholar, Department of Education, Periyar University, Salem-11, Tamil Nadu, India.

**Associate Professor, Department of Education, Periyar University, Salem-11, Tamil Nadu, India.

Abstract

This study explores the effect of relaxation exercises on secondary school students' mathematics examination accomplishment. A quasi-experimental design was employed, involving 40 students randomly in an experimental and control group. The experimental group participated in a structured program of relaxation exercises, including guided imagery, deep breathing, and progressive muscle relaxation, administered for 15 minutes daily for eight weeks. The control group continued with their regular mathematics curriculum without any additional interventions. Pre- and post-intervention assessments were conducted using standardized mathematics tests to measure the student's accomplishment in the subject. Results indicated a statistically significant improvement in the mathematical scores of students in the experimental group compared to those in the control group. Qualitative feedback from students suggested that the relaxation exercises reduced anxiety improved concentration, and enhanced performance. These findings suggest that relaxation techniques in the school routine can be a valuable strategy for improving students' academic outcomes in mathematics. Further research is recommended to explore relaxation exercises' long-term effects and potential applications across different subjects and educational contexts.

Keywords: Relaxation Exercises, Secondary Students, Mathematics, Accomplishment.

Introduction

Globally speaking, India boasts the finest mathematicians. Mathematical influence has been greatly influenced since ancient times. However, there are issues with teaching mathematics to young minds in our modern schools. In essence, mathematics is a logical topic. To understand the logic of mathematics, one must have a calm, clear mind when learning the subject. To distract kids and increase their stress levels, our contemporary environment produces a lot of disruption. The best exercise to reduce stress is yoga. Numerous yoga techniques are based on numerous traditions from different regions. Simplified kundalini yoga is one of the key yoga practices. The acronym for simplified kundalini yoga is SKY. Numerous studies have shown how simplified kundalini yoga enhanced students' learning across a range of subjects. In particular, it aids in the behavioral development of students. Thus, the researcher investigates how the simplified kundalini yoga relaxation exercise improves mathematics accomplishment.

The Study's Importance and Need

An analytical mind is necessary for learning mathematics in order to comprehend and resolve problems. A quiet mind is necessary to comprehend and evaluate mathematical concepts. The researcher only sees simplified kundalini yoga relaxation exercise, despite the presence of numerous yoga practices. It offers complete physical and mental relaxation. It aids in keeping the idea focused while preventing any physical or psychological disruptions. In order to raise the accomplishment in the mathematics examination, the researcher does the relaxation exercise.

Objectives of the Study

- To find out the gain scores of the control group and experimental group in Mathematics.

Hypothesis of the Study

- There is no significant difference in the achievement scores of the control group and experimental group in Mathematics Achievement.

Method Used for this Study

The experimental method is used for this study. The researcher selected 40 students from XI standard of Government Aided Higher Secondary School and divided them into two groups named as Control Group and the Experimental Group. Each group has 20 students. Various categories of students like low, average, and high are selected in each group. The selection of the students is based on their scores in the first term exam.

Tools Used for the Study

The question paper was prepared by the researcher with multiple choices for 20 marks. The question items are selected from XI standard, Tamil Nadu State Board Syllabus.

Validity and Reliability of the Tool

The tool which was constructed by the researcher was given to the experts in the field of Mathematics to establish validity and reliability.

Sample of the Study

There are 40 students selected from XI standard students of Government Aided Higher Secondary School in Omalur, Salem.

Sampling Technique

The purposive random sampling technique is used to select the sample for this study.

Data Analysis and Interpretation

Table 1: Percentage Analysis

Level	Pre-test				Post-test			
	Control Group		Experimental Group		Control Group		Experimental Group	
	N	%	N	%	N	%	N	%
High	4	20	4	20	3	15	7	35
Average	11	55	10	50	11	55	12	60
Low	5	25	6	30	6	30	1	5
Total	20	100	20	100	20	100	20	100

In the experimental group percentage of high scorers (35%) in the Post-test is higher than the percentage of high scorers (20%) in Pre-test. It shows that the Relaxation Exercise has positively influenced the accomplishment of the Mathematics examination.

Inferential Analysis

H0 1 - There is no significant difference in the gain scores of the control group and experimental group in the accomplishment of the Mathematics examination.

Table 2 Significance of Difference between the Mean of Gain Scores of Experimental Group and Control Group in accomplishment of Mathematics examination

Gain Score	N	Mean	SD	't' Value	Significance
Experimental Group	20	1.25	0.85	3.144	Significant
Control Group	20	4.3	2.34		

From the table, it can be inferred that the obtained t- value 3.144 is greater than the table t- value 1.96 at 0.05 level of significance. From this, we can state that there is significant difference in the gain score of the control group and experimental group.

From this, it can be interpreted that the significant difference in the gain score of the control and experimental group is because of the effectiveness of Relaxation Exercises given to the students. It can also be stated that the performance of the students in the experimental group is better than the performance of the students in the control group.

Findings

The findings of the study can be stated as follows,

- There is significant difference in the gain scores of control group and experimental group in the accomplishment of Mathematics examination

Educational Implications

- Students can practice the Relaxation Exercises before starting their home studies.
- The teacher can use the relaxation exercises before starting the class hours.
- Positive suggestions should be given by the instructor when they are in relaxed state.
- Relaxation Exercises can be used to avoid exam fear and other type of stress.

Conclusion

In our modern technological world, students suffer with stress and other psychological problems. Relaxation Exercises which are taken by the SKY work effectively in Mathematics Achievement. Students can improve themselves positively.

References

1. Best, J.W. and Kahn, J.V. Research in Education, Pearson, 2005.
2. Kothari, C.R. Research Methodology Methods and Techniques, Wishwa Prakashan, New Delhi, 1997.
3. Mangal S.K. Statistics in Psychology and Education, PHI Learning Private Limited, New Delhi, 2002.
4. Mohan, Radha. Research Methods in Education, Neelkamal Publications, New Delhi. 2014.