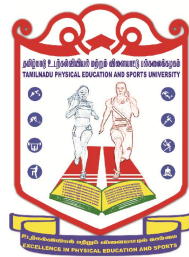


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**EFFECTS OF VARIED INTENSITIES AND FREQUENCIES OF CIRCUIT
TRAINING ON SELECTED MOTOR ABILITY COMPONENTS
PHYSIOLOGICAL AND HAEMATOLOGICAL
VARIABLES AMONG SCHOOL BOYS**

**Thesis Submitted to the Tamil Nadu Physical Education and Sports
University, Chennai Through Dr. Sivanthi Aditanar College of Physical
Education, Tiruchendur for the fulfillment of the requirements
for the award of Degree of**

**DOCTOR OF PHILOSOPHY
IN
PHYSICAL EDUCATION**

**Submitted by
S. ARASU**

**Guided by
Dr. V.KUMARAN**



**TAMIL NADU PHYSICAL EDUCATION AND SPORTS UNIVERSITY
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INDIA**

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Submitted by

S.SANGEETHA

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**Dedicated to
My
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ACKNOWLEDGEMENT

(The candidate may thank all those who helped for the successful completion of the thesis. However those who are paid for this purpose need not be acknowledged)

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C Raw Scores of Resting Pulse Rate	147

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CHAPTER I
INTRODUCTION

General introduction, background, variables, training aspects and other similar aspects related to the study shall be described.

1.11 OBJECTIVES OF THE STUDY

1.12 STATEMENT OF THE PROBLEM

1.13 HYPOTHESIS

1.14 SIGNIFICANCE OF THE PROBLEM

1.15 DELIMITATIONS

1.16 LIMITATIONS

1.17 MEANING AND DEFINITION OF THE TERMS

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CHAPTER II

REVIEW OF RELATED LITERATURE

Review of related literature is very important and it plays a vital role to understand the problem thoroughly. The investigator has referred the related literature and the previous research completed in this area have been collected and presented in this chapter.

2.1 STUDIES ON CIRCUIT TRAINING

2.2 STUDIES ON VARIED INTENSITIES

2.3 STUDIES ON VARIED FREQUENCIES

2.4 STUDIES ON MOTOR ABILITY COMPONENTS

2.5 STUDIES ON PHYSIOLOGICAL VARIABLES

2.6 STUDIES ON HEMATOLOGICAL VARIABLES

2.7 SUMMARY OF THE LITERATURE

(Sample page)

CHAPTER III

METHODOLOGY

In this chapter selection of the subjects, selection of variables, experimental design, pilot study, criterion measures, reliability of data, reliability of instruments, tester's reliability, subject reliability, circuit training programme, training schedule, test administration, collection of data and the statistical techniques used have been explained.

3.1 SELECTION OF SUBJECTS

3.2 SELECTION OF VARIABLES

3.3 EXPERIMENTAL DESIGN

3.4 PILOT STUDY

3.5 CRITERION MEASURES

3.6 RELIABILITY OF DATA

3.7 RELIABILITY OF INSTRUMENTS

3.8 TESTER'S RELIABILITY

3.9 SUBJECT RELIABILITY

(Sample page for experimental study)

3.10 CIRCUIT TRAINING PROGRAMM

3.11 TRAINING SCHEDULE

3.12 TEST ADMINISTRATION

3.12.1 RUNNING ON THE SPOT WITH HIGH KNEE ACTION

3.12.2 SHUTTLE RUN

3.12.3 ROPE SKIPPING

3.12.4 BENT KNEE SIT UPS

3.13 COLLECTION OF DATA

3.14 STATISTICAL TECHNIQUES

(Sample Page for Experimental Study)

CHAPTER IV

RESULTS AND DISCUSSIONS

4.1 OVER VIEW

This chapter deals with the analysis of data collected from the samples under study. The five groups namely experimental group I (80 % intensity with 2 days frequency), experimental group II (80 % intensity with 4 days frequency), experimental group III (90 % intensity with 2 days frequency), experimental group IV (90 % intensity with 4 days frequency) and control group were analysed with the differences in the measures of selected mortar ability components, physiological and hematological variables in relation to pre-test, post-test and adjusted post-test scores.

The subjects were selected at random, but the groups were not equated in relation to the factors to be examined. Hence the difference between the means of the five groups in the pre-test, had to be taken into account during the analysis of the post-test differences between the means. This was achieved by the application of the analysis of covariance, where the final means were adjusted for differences in the initial means and the adjusted means were tested for significance. When the post-test means were significant, the Scheffe's post-hoc test was administered to find out the paired means significant difference.

4.2 TEST OF SIGNIFICANCE

4.2.1 LEVEL OF SIGNIFICANCE

4.3 COMPUTATION OF ANALYSIS OF COVARIANCE AND POST HOC TEST

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TABLE IV

COMPUTATION OF ANALYSIS OF COVARIANCE OF SPEED
(Scores in Seconds)

	Experimental Group I	Experimental Group II	Experimental Group III	Experimental Group IV	Control Group	Source of Variance	Sum of Squares	df	Mean Squares	Obtained F-ratio
Pre-test Mean	8.23	7.94	8.45	8.46	8.12	B W	1.95 4.26	4 45	0.49 0.09	5.15*
Post-test Mean	7.82	6.76	7.61	6.77	8.11	B W	15.38 3.07	4 45	3.85 0.07	56.36*
Adjusted Post-test Mean	7.83	7.04	7.43	6.59	8.22	B W	16.27 0.01	4 44	4.07 0.05	16602.35*
Mean Gains	0.41	1.19	0.84	1.69	0.004					

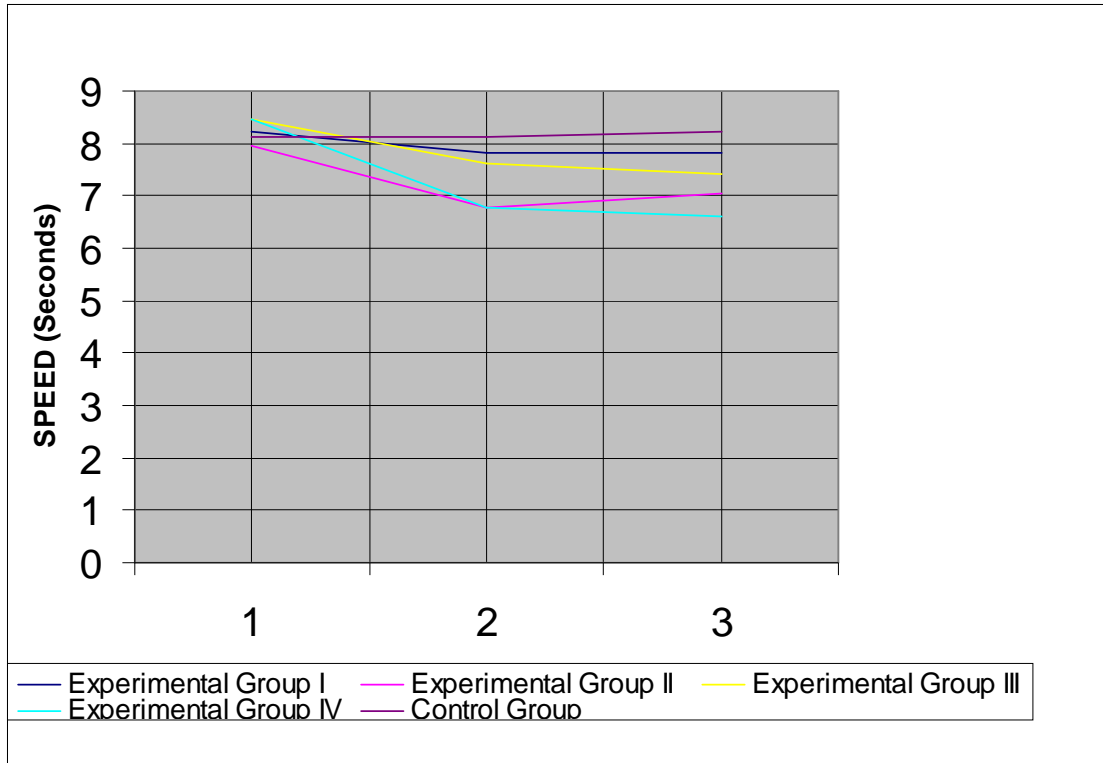
Table F-ratio at 0.01 level of confidence for 4 and 45 (df) =3.82, 4 and 44(df) =3.82 .
*Significant

4.3.1 RESULTS OF SPEED

(Sample Page for Experimental Study)

FIGURE 1

LINE GRAPH SHOWING THE MEAN DIFFERENCES AMONG THE GROUPS ON SPEED



4.3.1.1 DISCUSSION ON THE FINDINGS OF SPEED

4.3.2 RESULTS OF LEG EXPLOSIVE POWER

4.3.2.1 DISCUSSION ON THE FINDINGS OF LEG EXPLOSIVE POWER

4.4 DISCUSSION ON HYPOTHESIS

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CHAPTER V
SUMMARY CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY

5.2 CONCLUSIONS

5.3 RECOMMENDATIONS

5.4 SUGGESTIONS FOR FURTHER RESEARCH

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APPENDIX A

RAW SCORES ON SPEED
(Seconds)

S.No	Expt. Group I		Expt. Group II		Expt. Group III		Expt. Group IV		Control Group	
	Pre-Test	Post – Test	Pre-Test	Post – Test	Pre-Test	Post – Test	Pre-Test	Post – Test	Pre-Test	Post – Test
1	8.30	7.89	7.95	6.76	8.44	7.60	9.13	7.31	8.30	8.29
2	7.81	7.42	8.68	7.38	8.53	7.68	8.24	6.60	8.09	8.08
3	8.07	7.67	7.85	7.85	6.68	8.25	7.43	8.04	8.18	8.18
4	8.58	8.16	7.44	6.33	8.71	7.84	8.85	7.08	8.00	8.00
5	8.10	7.70	7.93	6.74	8.19	7.38	7.59	6.08	8.14	8.14
6	8.68	8.25	8.24	7.01	8.68	7.82	9.04	7.24	8.05	8.05
7	8.02	7.62	7.78	6.62	8.22	7.40	8.16	6.53	8.21	8.21
8	8.44	8.02	7.83	6.66	8.69	7.83	8.58	6.87	8.02	8.02
9	8.04	7.64	7.94	6.75	8.27	7.45	8.20	6.56	8.07	8.07
10	8.23	7.82	7.79	6.63	8.52	7.67	8.75	7.00	8.11	8.10

(Sample page)