



IMPACT OF METHOD OF TEACHING ON SELECTED PHYSICAL FITNESS COMPONENTS OF HANDBALL AMONG SCHOOL BOYS

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ABSTRACT

The purpose of the study was to find out impact of method of teaching on selected physical fitness components of handball among school boys. To achieve the purpose of the study, forty school boys were selected randomly 12 to 14 years of age from thondamuthur boy's higher secondary school at Coimbatore. The selected subjects were divided into two equal groups namely experimental and control groups of 20 subjects each. The training period was limited to twelve weeks and for three days per week. The whole part whole method of teaching was selected as independent variables and Speed, Strength, Flexibility, Agility and Balance were selected as dependent variables and it was measured by 50 meters dash, 1RM test, sit and reach, Shuttle run (6X10) and flamingo balance test respectively. All the subjects were tested two days before and immediately after the experimental period on the selected dependent variables. The obtained data from the experimental group and control group before and after the experimental period were statistically analyzed with dependent 't'-test to find out significant improvements. The level of significance was fixed at 0.05 level confidences for all the cases. Significant improvement was found on speed, strength, flexibility, agility and balance of experimental group due to the whole part whole method of teaching when compared to the control group.

KEYWORDS: Speed, Strength, Flexibility, Agility and Balance.

INTRODUCTION

The main and aim and object of all education is all – around development of individual's personality. To achieve this aim it is very essential for an educational institution or school to provide different activities to its students. Over the year, the educationists have realized to a great extent that the center of all education is the child or individual. This implies that the teaching – learning process in education has taken a broader meaning and scope. It is now absurd, if not foolish, to think that teaching is only, passing on the experiences from one generation to the other or that it is merely instruction i.e., do's and do not's of behavior (**mike Anderson 2010**).

Whole – Part - Whole Method in this method a full and clear conception of the whole activity is given at the outset. Then the activity is divided into its meaningful parts and taught. After practising these parts as separate skills they are put in a practice game situation. Thus initial practice is on the individual parts. Then the parts are combined into the whole activity. This method is highly recommended to teach major games.

Physical fitness is a systematic process extending over a long period. For best results the system of training has to be based and conducted on scientific facts and lines where it is not possible to do that, the training has to be based on the results of successful practice which has withstood the test of time sport. The physical fitness on condition is the namely, speed, strength, agility, explosive power, flexibility, cardio respiratory endurance and coordinate abilities. These all motor abilities and their complex forms are the basic requirement for human motor actions. Therefore, the sports performance in all sports depends to a great extent on these abilities. The improvement and maintenance of physical fitness of condition is perhaps the most important aim of physical training.



METHODOLOGY

For the purpose of this study, altogether forty school boys were selected randomly 12 to 14 years of age from thondamuthur boy's higher secondary school at Coimbatore. Their age group ranges from 12 to 14 years. They were divided into two groups of 20 each. The Experimental group I would undergo Whole – Part - Whole Method. In this method a full and clear conception of the whole activity is given at the outset. Then the activity is divided into its meaningful parts and taught. After practising these parts as separate skills they are put in a practice game situation. Thus initial practice is on the individual parts. Then the parts are combined into the whole activity. This method is highly recommended to teach major games.

. The second group Control group did not undergo any training program. Pre – test and post –test would be conducted. Treatment would be given for twelve weeks. It would be find out finally the out impact of method of teaching on selected physical fitness components of handball among school boys in scientific methods.

The selected tests were measured by following units for testing:

| Criterion Variables | Test Items | Unit Measurements |
|---------------------|-----------------------|-------------------|
| Speed | 50 meters dash | Seconds |
| Strength | 1RM test | Kg |
| Flexibility | Sit and Reach | Centi Meters |
| Agility | Shuttle run(6X10) | Seconds |
| Balance | flamingo balance test | Seconds |

TRAINING PROGRAMME

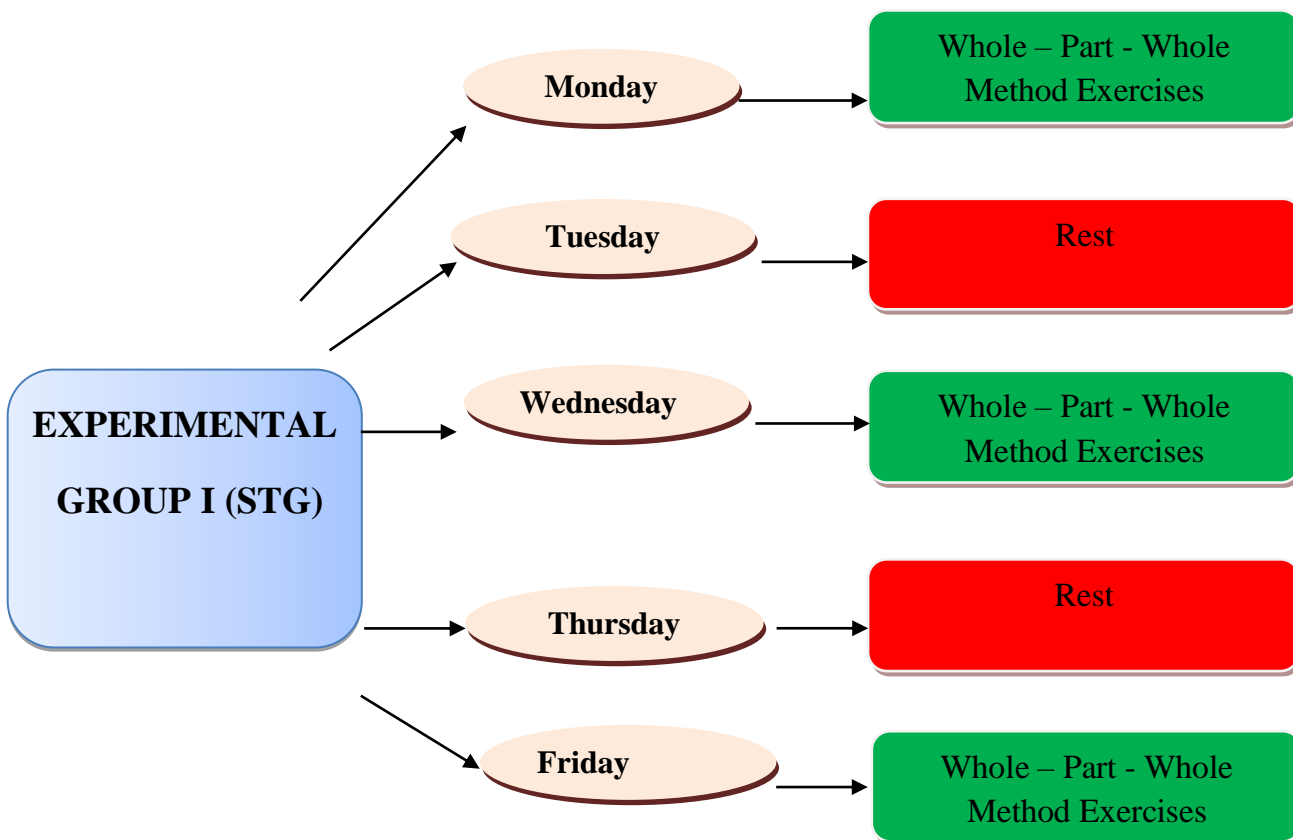
The following schedule of training was given for the Whole – Part - Whole Method group.

| Group | Design of the Training |
|--------------------------|----------------------------------|
| Experimental Group I | Whole – Part - Whole Method |
| Control Group II | Did not do any Specific Training |
| Training Duration | 90 Minutes |
| Training Session | 3 Days a week |
| Total Length of Training | Twelve weeks |



**CHART-1
EXPERIMENTAL TREATMENT ADOPTED
FOR EXPERIMENTAL GROUP-I**

WHOLE – PART - WHOLE METHOD EXERCISES GROUP (WPWMEG)





**TABLE- I
PROGRESSION OF LOAD FOR EXPERIMENTAL GROUP-I (STG)**

| Weeks | Swissball Training (Monday, Wednesday, Friday) | Duration(10+25+4 0-+15= 60 min) | Load |
|--------------------------|---|--|-------------|
| I to IV | Warm -up | 5 minutes | |
| | 1000M Walking / Jogging | | |
| | Over head pass Writs pass Jump pass Behind the back pass Behind the head pass | 10 minutes 40 minutes | |
| | Warm- down | 5 minutes | |
| V to VIII | Warm- up | 5 minutes | |
| | 2000 M Walking /Jogging | | |
| | Dribbling full court Dribble routine Dribble train | 10 minutes | |
| | Dribble relay Dribble chase down | 40 minutes | |
| | Warming down | 5 minutes | |
| IX to XII | Warm- up | 5 minutes | |
| | 3000 M Walking /Jogging | 10 minutes | |
| | Set shoot Jump shoot | | |
| | 2 foot jump shoot Wing shoot | 40 minutes | |
| | Positional shoot | | |
| | Warming down | 5 minutes | |

**EXPERIMENTAL DESIGN**

The experimental group was given swissball training exercises after taking an initial test. After the initial test selected swissball exercises were given for twelve weeks in three days. The time of practice was from 6.00AM to 7.30 AM. The control groups were not participating in any of the special training programme. However they were allowed to participate in their regular education classes in the school as per their curriculum.

STATISTICAL TECHNIQUE

The data were statistically evaluated with dependent t-test to discover obtainable significant development. The level of significance was secure at 0.05 level of confidence for all the cases.

RESULTS AND DISCUSSIONS

The impact of independent variables on each criterion variables was considered by dependent 't' - test on the data achieved for speed, strength, flexibility, agility and balance. The pretest and post- test means of experimental group and control group have been analyzed and existing in Table II & III.

TABLE – II
MEAN AND DEPENDANT 't' – RATIO FOR THE PRE AND POST TESTS ON SPEED, STRENGTH, FLEXIBILITY, AGILITY AND BALANCE OF EXPERIMENTAL GROUPS

| S.No | Variables | Pre-test Mean± SD | Post-test Mean± SD | Diff | SE | 't' –ratio |
|------|-------------|-------------------|--------------------|------|------|------------|
| 1. | Speed | 08.20 ± 2.16 | 07.76 ± 1.88 | 0.44 | 0.61 | 4.86* |
| 2. | Strength | 29.14 ± 2.28 | 30.12 ± 2.32 | 0.98 | 0.13 | 5.76* |
| 3. | Flexibility | 8.46 ± 2.47 | 10.33 ± 3.23 | 1.87 | 0.24 | 7.80* |
| 4. | Agility | 8.07 ± 1.04 | 7.12 ± 1.12 | .95 | .05 | 8.10* |
| 5. | Balance | 13.15 ± 1.69 | 15.70 ± 1.49 | 24 | .34 | 7.58* |

*Significance at 0.05 level of confidence (2.09).

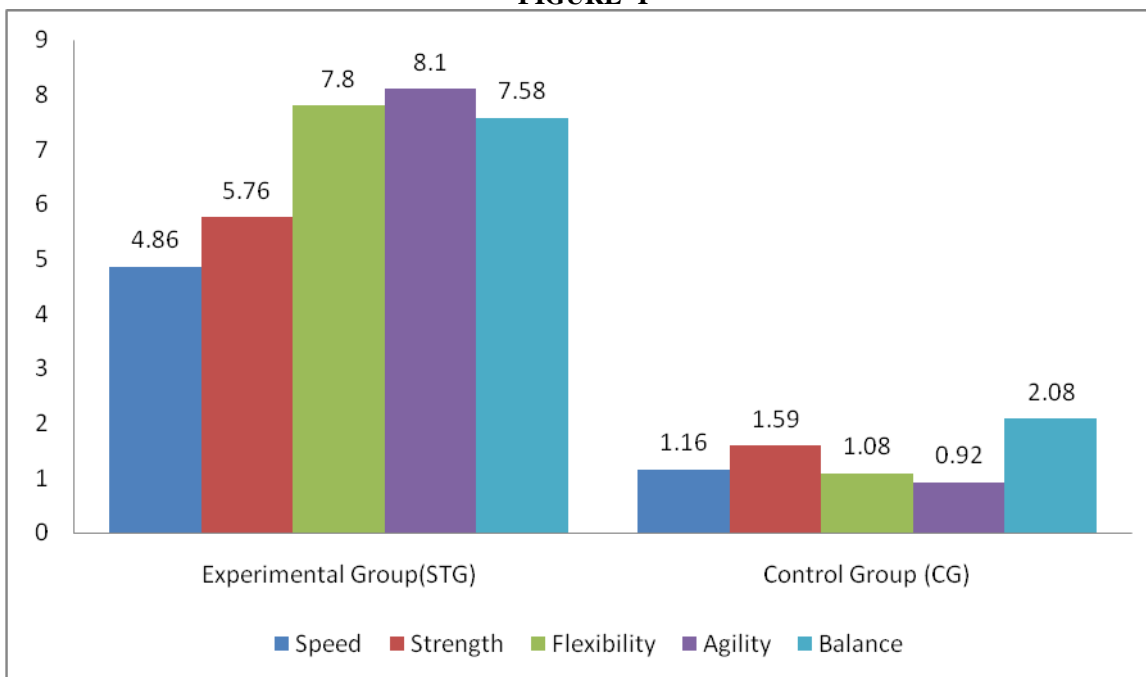
TABLE – III
MEAN AND DEPENDANT 't' – RATIO FOR THE PRE AND POST TESTS ON SPEED, STRENGTH, FLEXIBILITY, AGILITY AND BALANCE OF CONTROL GROUP

| S.No | Variables | Pretest Mean±SD | Post test Mean± SD | Diff | SE | 't' –ratio |
|------|-------------|-----------------|--------------------|------|------|------------|
| 1. | Speed | 08.26 ± 2.16 | 08.24 ± 1.88 | 0.02 | 0.61 | 1.16 |
| 2. | Strength | 29.14 ± 2.28 | 29.20 ± 2.32 | 0.06 | 0.13 | 1.59 |
| 3. | Flexibility | 8.53 ± 3.05 | 8.83 ± 2.13 | 0.30 | 0.27 | 1.08 |
| 4. | Agility | 8.90 ± 1.114 | 8.73 ± 1.107 | .17 | .18 | .920 |
| 5. | Balance | 13.17 ± 1.73 | 11.48 ± 3.70 | .35 | 23 | 2.08 |

*Significance at 0.05 level of confidence (2.09).

The table II and III, shows that, the obtained 't' –ratio between the pre and post-test means of experimental group were 4.86, 5.76, 7.80, 8.10, 7.58 and control group were 1.16, 1.59, 1.08, .920, 2.08 respectively. The table values required for significant difference with df 24 at 0.05 level of confidence. Since the obtained 't' – ratio value of experimental and control group on speed, strength, flexibility, agility and balance were greater than the table value 2.09, it was concluded that the Whole – Part - Whole Method group had significantly improved speed, strength, flexibility, agility and balance of experimental group.

The pre and post- test mean value of experimental and control group on speed, strength, flexibility, agility and balance were graphically represented in the figure 1.

**FIGURE -I**

DISCUSSION ON FINDINGS

The finding of the study reveals that the Whole – Part - Whole Method group because significant improvement in their physical fitness components .In the view of control group there was no significant improvement in their physical fitness components. The findings of the study had close relationship with the results of the previous study conducted by Moradi, J., Movahedi, A., & Salehi, H. (2014). Specificity of learning a sport skill to the visual condition of acquisition.

CONCLUSIONS

Improvement on speed, strength, flexibility, agility and balance was found significantly on experimental group due to the impact of Whole – Part - Whole Method group on physical fitness when compared to the control group.

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