

Motor Ability

Programme: MPEd.

Course: Measurement and Evaluation

Faculty: S. Thirumalai Kumar

- **“The immediate capacity of an individual to perform in many varied stunts or athletic events”**

- Donald K. Mathews

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- **“The present acquired and innate ability to perform motor skills of a general or fundamental nature, exclusive of highly specialized sports or gymnastic techniques”**

Barrow & McGee

Barrow Motor Ability Test

First Battery

1. Standing Broad Jump
2. Soft ball throw for Distance
3. ZigZag Run
4. Wall Pass
5. Medicine Ball put (6 pounds)
6. 60 yards dash

Second Battery

1. Standing Broad Jump
2. ZigZag Run
3. Medicine Ball put (6 Pounds)

Standing Broad Jump

- Purpose : To measure the leg power of the subjects
- Facilities / Equipment:
A 5 by 20 foot tumbling mat
Measuring tape, Score Sheet,
- Procedure: Warm jump permitted- Take with both feet- swing- crouch permitted.
- Scoring: 3 Trials –Best , nearest inch.

Soft ball throw for Distance

- Purpose : To measure the arm and shoulder coordination
- Facilities / Equipment:
- A Field is marked in 5 yards interval with side line markers .
- A regulation Soft ball (12 inch in seam)

Procedure:

- 3 throws with short run
- Scoring
- Best
- Nearest foot.

ZigZag Run

Purpose:

Agility primarily and speed secondarily

Facilities / Equipment:

A Field is marked as in the figure,
Cone/ Indian Clubs/ Volleyball
Standards/Chair

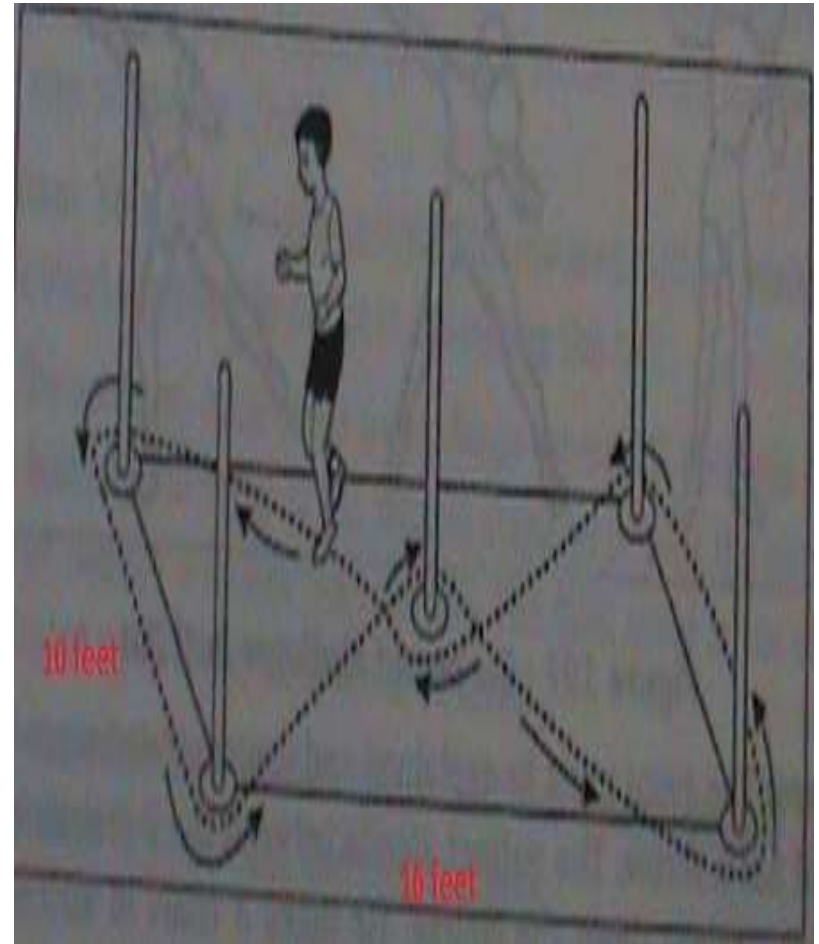
Procedure:

Semi Crouched point- The subject traverses (go across/ pass through) the course 3 times.

Not grasp/knock/ the standard or cone. If foul committed second trial is permitted.

Scoring

- Time elapsed to run the prescribed course 3 time.



Wall Pass

Purpose:

Hand Eye Coordination

Facilities / Equipment:

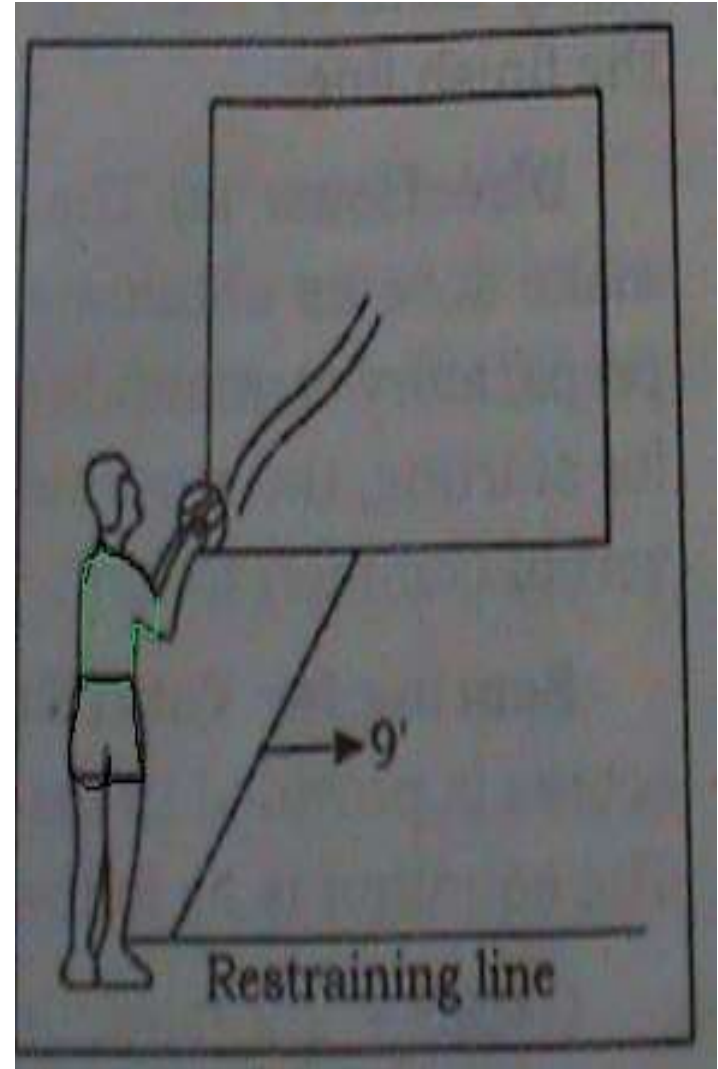
A restraining line marked on the floor 9 feet from a smooth wall-

Procedure:

On signal start pass – any manner- caught on the rebound- rapidly as possible- 15 seconds. Ball missed –subject to retrieve and return to start/ restraining line.

Scoring

- Number of passes in 15 seconds



Medicine Ball put (6 pounds)

Purpose: To measure arm and shoulder girdle strength primarily, the power agility, arm and shoulder girdle coordination, speed, and balance secondarily.

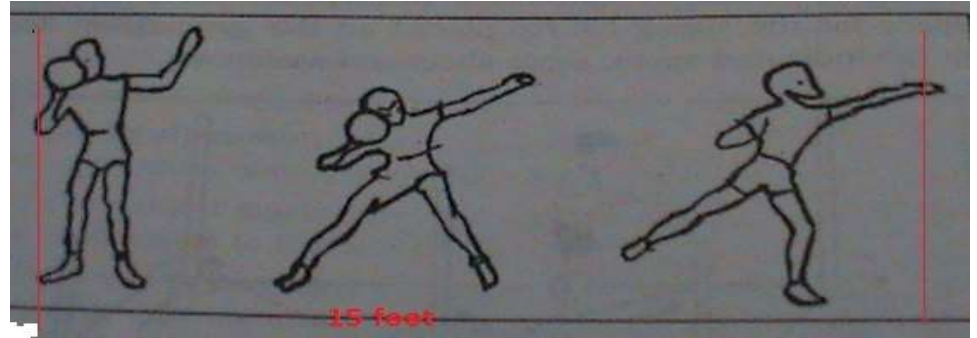
Equipment/Facility: Medicine balls (six pound), measuring tape. A restraining line is marked with a second line 15 feet to the rear.

Procedure

The subject stands between two restraining lines and puts the ball straight down the course.

Three trials in succession. Fouls count as a trial , but in the event that all 3 trials are fouls, the subject must put until he makes a fair put.

Scoring: The final score is the distance of the best put measured to the nearest one half foot.



60 yards Run

Purpose: To measure Speed

Equipment/Facility: Smooth surface at least 80 yards, start and finish line, Stop Watch , whistle, Score sheet, Helpers

Procedure

Warm up- Standing start- ready- get set- GO-.

Scoring: Elapsed time in seconds

New ton Motor Ability Test

- High School Girls
 1. **Standing Broad Jump**
 2. **Baby hurdles**
 3. **Scramble**

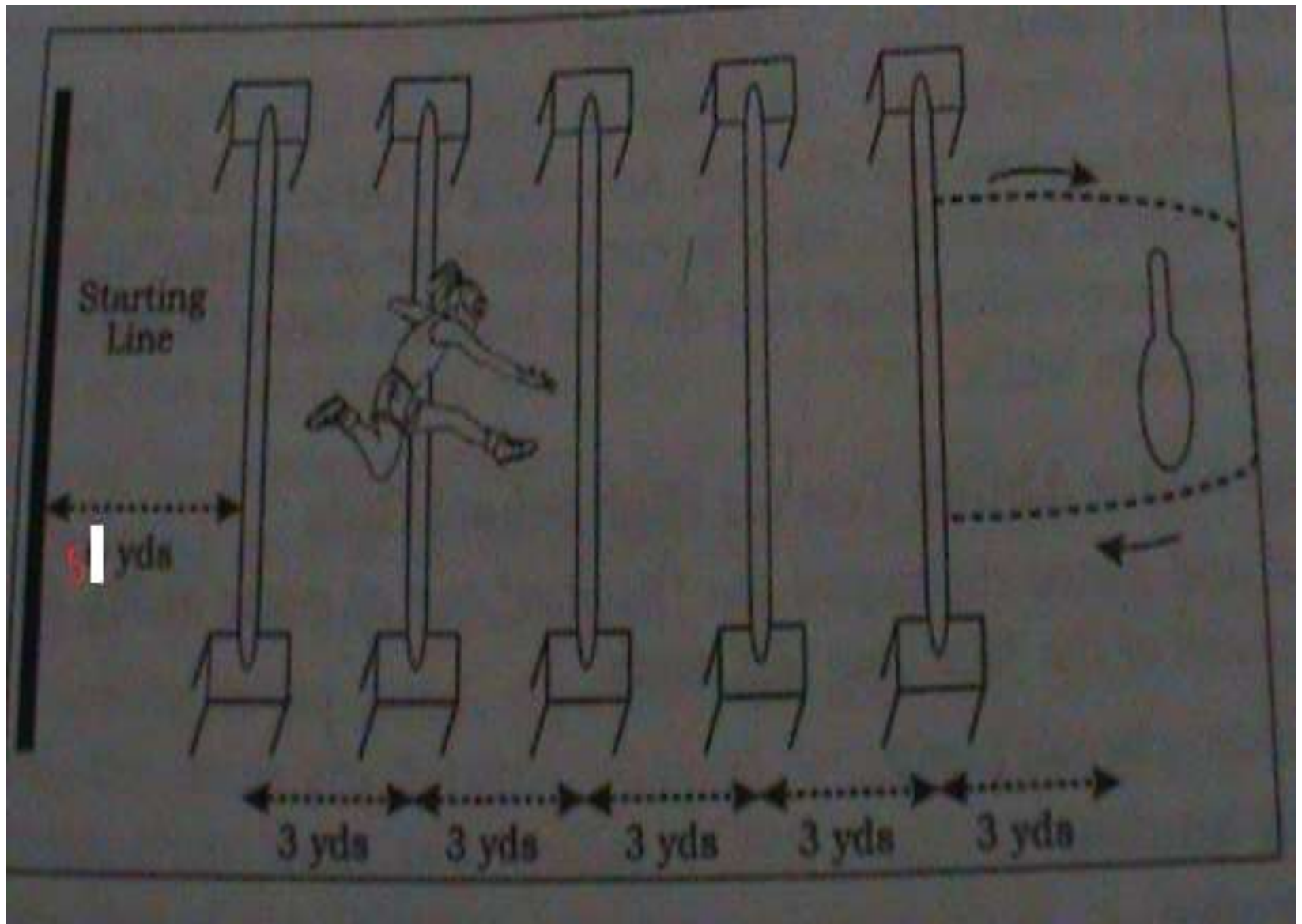
- SBJ
- 3 trials

Standing Broad Jump

- Purpose : To measure the leg power of the subjects
- Facilities / Equipment:
Long Jump Pit, Or Marking on the ground, Measuring tape, Score Sheet, Chunnam or White Paint
- Procedure: Take with both feet- sing- crouch permitted
- Scoring: 3 Trials – If falls back retake the test.

Baby Hurdles

- Purpose : To measure jumping ability, Speed and Leg power.
- Facilities / Equipment:
A gymnasium, benches (10Nos.), hurdles, bamboo sticks, Chairs, Indian Clubs, Score Sheet, Stop Watch.
- Procedure: Ten gymnasium benches and five split bamboo sticks are used for setting up hurdles. Ht 15 inches. First hurdle is 5 yards from the starting line, the others at 3 yards interval. A Indian club 3 yards from last hurdle.. Run – turn at Indian club run back.
- Scoring: Time nearest fifth of a seconds.



Scramble

- Purpose : To measure balance, Coordination, reaction time.
- Facilities / Equipment:

A Shelf, Tape bell Mat, Stop watch, Score Sheet, Helpers.

- Procedure: A Jumping standard is arranged with a small shelf(Four feet above the floor)feet.
- It is placed 10 feet from the wall.
- The subjects from a back lying position on the floor with both feet against the wall and arm stretched sideways at shoulder level, Palms down.
- At the starting signal she gets up, runs and taps the bell twice, returns to the starting position and claps the hand on the floor twice.
- The performance is repeated till she has made the fourth double tap of the bell.
- Scoring: Time nearest fifth of a seconds.

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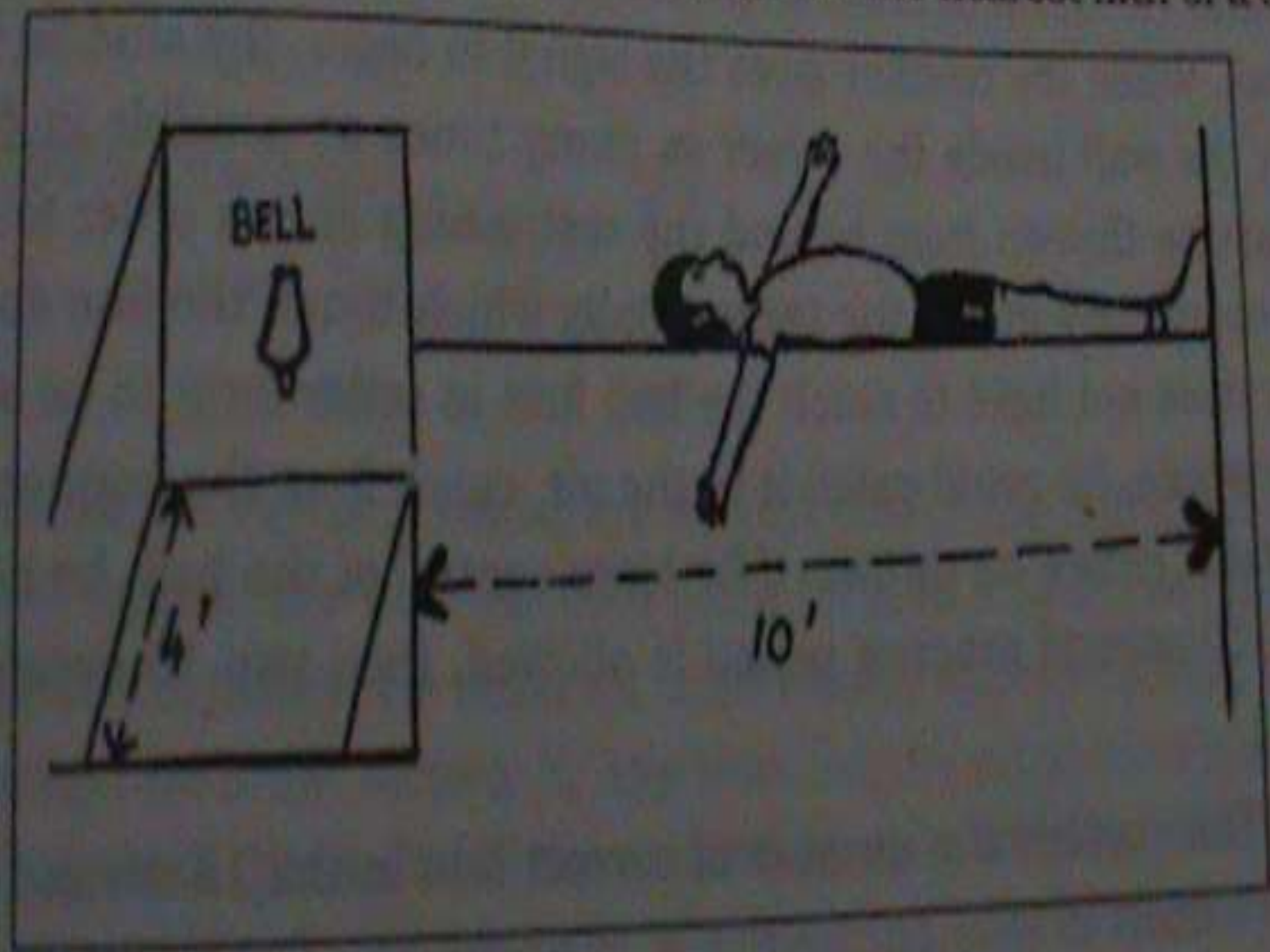


Figure 113 · Scramble

AAHPERD Health Related Physical Fitness Test

1958- Youth Physical Fitness test,

(7 test items : Pull ups(B)/ Flexed ARM Hang(G), SITUPS, SHUTTLE RUN, SBJ, 50 Yards, 600 Y R/Walk, Soft ball Throw)

1976 – Youth Physical Fitness test- Revised .

(6 test Items : Day I Pull ups(B)/ Flexed ARM Hang(G), Bent Knee SITUPS, SHUTTLE RUN, Day II: SBJ, 50 Yards or 600 Y R/Walk)

1980- Concept of fitness testing modified due to the inclusion of HRPF- Youth Fitness test was converted to **AAHPERD Health Related Physical Fitness Test**

AAHPERD Health Related Physical Fitness Test

Intends to measure 3 components

- 1. Cardio respiratory function**
- 2. Body Composition (Leanness/ Fatness)**
- 3. Abdominal and Low back – Hamstring
Musculo-Skeletal function.**

- AAHPERD Health-Related Fitness Battery (Physical Best) (1980, revised in 1984)
 1. Cardiorespiratory Function field based run: 1 mile or 9 minute
optional: 1.5 or 12 minute for age 13+
 2. Body Composition triceps or triceps/subscapular
 3. Abdominal and Low-Back Hamstring Function bent-knee sit ups (60 seconds) sit-and-reach test

http://www.brettle.com/cgi-bin/index2file.cgi?/pub/ExerciseScience/LectureNotes/Indexed/Measurement_Evaluation/O.Youth_Fitness_Testing.txt

http://www.brettle.com/pub/ExerciseScience/LectureNotes/Indexed/Measurement_Evaluation/

Tests

1. Cardiorespiratory functional capacity and endurance: 1/1.5 mile run/ or 12/ 9-minute run
2. Body composition: Sum of triceps and sub scapular skin fold measurements.
3. Abdominal muscular strength and endurance: Modified sit-ups/ Timed Flexed Situps.
4. Flexibility: Sit and reach