

## GUIDELINES FOR ASSESSMENT OF PHYSICAL FITNESS TESTS FOR ADMISSION OF NEW STUDENTS AT HIGH SCHOOL LEVEL THROUGH THE SPORTS ACHIEVEMENT TRACK

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**Abstract:** Physical fitness is the most essential component in the world of sports, especially among students. Physical fitness is one of the requirements for student admission through the Athlete achievement track. The Physical Fitness Test is an indicator of whether or not students are eligible to enter the chosen school through the sports achievement track. Various physical fitness assessment instruments are available but there is very little knowledge for PE teachers to apply them. The purpose of this article is to help the selectors of prospective students for sports achievement pathways to be able to have guidelines in the physical fitness assessment instrument, especially at the high school level.

**Keywords:** Physical Fitness Tests, Physical Education, Assessment Instruments, Measurements

### 1. Introduction

Education is essentially a conscious effort to develop the skills that exist in a person. Education is also an effort to develop children's abilities as optimally as possible by criteria according to their abilities so that there is no pressure in educational design that exceeds children's abilities. Coercion on child development hinders the physical, psychological, and social development of children. To this vision, educational opportunities are offered and adapted specifically to the child's level of development and physical, psychological, and intellectual abilities. The teacher is the main actor in the world of education, the teacher is the planner and implementer of fun learning (Suradika, 2019).

With the help of education, everyone can contribute their talents and potential, which can be developed holistically and optimally. All children have the right and obligation to receive education and study at all levels of education. It's the same with



physical education. Physical activity is one aspect of the general education process of students through carefully planned physical activities that are conscious and programmed to enhance the development of skills and abilities as well as physical and social intelligence. (Arma Abdoelah, 1996:2). The goals of physical education and health education are to develop physical fitness, mobility, critical thinking, social skills, reasoning skills, emotional stability, moral activity, and healthy lifestyles and promote a clean environment through physical activity, sports and health choices. systematically developed to achieve national education goals (Departemen Pembinaan Khusus dan Pelayanan Khusus Pendidikan Dasar, 2013:4).

Physical education is a subject that greatly affects the motor skills and development of children. Besides learning physical and athletic skills, it also involves a lot of character building, such as mental, emotional, social, and spiritual. Physical education is also one of the objectives of the national education system. Physical Education and Health Physical Education is a school subject that is part of general education and emphasizes physical activity and the promotion of healthy life in terms of physical, mental, social, and emotional growth and development that are harmonious, harmonious, and balanced. (Depdiknas, 2006).

Physical fitness is the ability of the human body to carry out daily tasks without significant fatigue, storing the body's energy reserves to cope with extra workloads (Nurhasan et al, 2005:17).

## **2. Literature Review**

### *2.1. PHYSICAL FITNESS TEST*

The word "test" comes from the Old French word *testum*, meaning a plate to replace precious metal, in Indonesian it is translated as *testo*, meaning test or test. So, the test is a tool to get information about the nature of an object or a person. A test is a tool for obtaining information about a person or thing. A test is a measuring tool that can be used to obtain objective information about student learning outcomes. Tests can be in the form of written questions, interviews, observations, physical ability tests and athletic ability tests, and others.

Mulyono Biakto Atmojo dan Sarwono (2002:7) : Tests are specially designed data collection tools. As a tool of collecting information or data, tests must be specifically designed. The specificity of the test is reflected in the format of the test questions used. In general, those tested cover three domains: cognitive, affective, and psychomotor. The role of tests is very important in various activities, including coaching sports and organizing education both inside and outside of school. Therefore, a coach, teacher, or whatever you call it, must know how to administer the test and interpret the results correctly.

Physical fitness tests, also known as fitness tests, are a series of tests that help assess a person's overall health and physical fitness. A physical fitness test is an attempt to determine a person's level of physical fitness, which allows us to obtain information

about his physical condition: a quality test also produces qualified people. Leaving aside the problem and its relation to the world of education, it is clear that this is the most important thing and the key to exploring this revolutionary current to create quality human resources (Dirgantara, 2021).

Tes Kebugaran Jasmani Indonesia (TKJI) /The Indonesian Physical Fitness Test for high schools or equivalent aged 16-19 years for men and women consists of 60-meter running, hanging body lift test, lying down, upright jumping, and running 1000 and 1200 meters.

### 3. Results and findings

#### 3.1. SERIES OF TEST

The TKJI test consists of

*For men consists of:*

- Run 50 meters for ages 13 to 15 years / run 60 meters for ages 16 to 19 years.
- Hang and lift the body (pull up) for about 60 seconds.
- Lie down followed by sitting for 60 seconds.
- Jump vertically or straight up.
- Run 1000 meters for ages 13 to 15 years / Run 1200 meters for ages 16 to 19 years.

*For women consists of:*

- Run 50 meters for ages 13 to 15 years / run 60 meters for ages 16 to 19 years.
- Let your elbows hang and hold for 60 seconds.
- lie down followed by sitting for 60 seconds.
- vertical jump or straight up
- 800m run for 13 to 15-year-olds / 1000m run for 16 to 19-year-olds.

#### 3.2. SUPPORTING TOOLS

Flat and non-slippery track/field, Stopwatch, Starting flag, Poles, Breastplates, Single bar for elbows, Scale or meter board for the diving board, Chalk powder or boundary line, Eraser tool, Test form, Whistle, Stationery, etc.

#### 3.3. TEST REQUIREMENTS

TKJI is a series of tests so that all items or tests must be carried out sequentially, continuously, and without stopping, considering the speed of transition, from the test to the next test within 3 minutes. It is understood that the TKJI test in a standard format cannot be conducted if the test is not carried out in the following order:

1. Run 60 meters (age 16-19 years)
2. Hang and lift the body.
3. Lie down followed by sitting.



4. Vertical jump straight up
5. 1000/1200 meters (16-19 years old)

### 3.4. GENERAL INSTRUCTIONS

#### Participant

- a. In good health and ready to carry out the test
- b. It is expected that you have eaten a maximum of 2 hours before the test.
- c. Wear sports shoes and clothes
- d. Warming up 73
- e. Understand the procedure for administering the test.
- f. If you cannot perform one / more of the tests, you will not get a score/score/failure.

#### Test Officer

- a. Instruct participants to warm up
- b. Provide a chest number that is clear and easy for officers to see
- c. Give directions to participants about the instructions for carrying out the test and allow them to try these movements.
- d. Paying attention to the speed of moving the implementation of the test items to the next test items with the shortest possible tempo and not delaying the time
- e. Does not give value to participants who cannot carry out one or more test items
- f. Recording test results can use individual test forms or per test item.

### 3.5. TEST PERFORMANCE INSTRUCTIONS

#### 1. Run 50 / 60 Meters.

- Purpose This test aims to measure speed
- Tools and Facilities
  - 1) The track is straight, flat, not slippery, has a continuous track, within 50/60 meters
  - 2) Start flag
  - 3) Whistle
  - 4) Piles
  - 5) Stop watches
  - 6) Points or lines of chalk powder
  - 7) TKJI Form
  - 8) Stationery
- TEST Officer
  - 1) Start Officer
  - 2) The timer also records the test results
- Implementation
  - 1) Beginning attitude, Participants stand behind the start line
  - 2) Movement

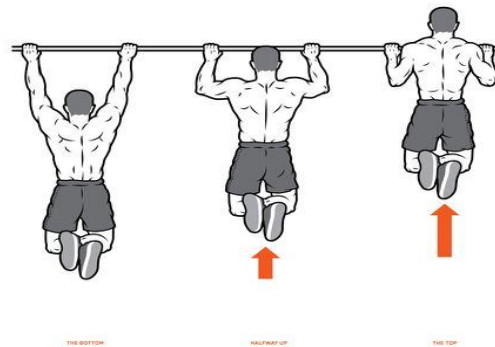
- on the signal "READY" the participants take a standing start stance, ready to run
  - on the signal "YES" the participants run as fast as possible to the finish line
- 3) Running can still be repeated if participants:
- steal start
  - don't cross the finish line
  - distracted by other runners
  - fell / slipped
- 4) Time measurement Time measurement is carried out from when the start flag is raised until the runner crosses the finish line
- 5) Recorder of results
- The recorded result is the time achieved by the runner to cover a distance of 50/60 meters in seconds
  - The time is recorded one digit behind the comma.



## 2. Body Lift Hang (Pull Up) Test for Men, Bend Elbow Hang Test for Women

Purpose This test aims to measure the strength and endurance of the arm and shoulder muscles 75.

- Tools and facilities.
  - 1) floors are flat and clean
  - 2) single bar that can be adjusted in height according to the height of the participant. The handle pipe is made of  $\frac{3}{4}$  inch iron
  - 3) stopwatch
  - 4) powdered lime or magnesium carbonate
  - 5) stationery.
    - Test Officer
      - 1) timekeeper or observer
      - 2) movement counter and result recorder.



- Implementation of the 60-second Body Lift Hanging Test (For Men).

- 1) Starting position Participants stand under a single bar. Both hands hold on to the crossbar shoulder-width apart. Palm grip facing the direction of the head.
- 2) Movement (For Boys)
  - Raise the body by bending both arms so that the chin touches or is above the single bar then returns to the starting position. This move is counted once.
  - During the movement, start and head to toe remains a straight line.
  - This movement is done repeatedly, without rest as much as 76 possible for 60 seconds.

Force is considered failed and not counted if:

- when lifting the body, the participant makes a swinging motion
- when lifting the body, the chin does not touch the single bar
- when returning to the starting position both arms are not straight.

### Results Recording

- 1) that is counted is the force that is done perfectly.
- 2) What is recorded is the number (frequency) of lifts that can be performed with perfect posture without resting for 60 seconds.
- 3) Participants who are unable to carry out this body strength test, even though they have tried, are given a score of zero (0).

Implementation of the Hanging Elbow Test (For Women) A single bar is placed at a height slightly above the participant's head.

### Starting position

- 1) Participants stand under the single bar, both hands holding on to the single bar shoulder-width apart. Palm grip facing towards the head (see picture)
- 2) Movement With the help of the repulsion of both legs, the participant jumps up until he reaches an attitude of bending his elbows, his chin is above the single bar (see picture) This attitude is maintained as long as possible (in seconds)
- g) Recording Results The recorded results are the time achieved by the participants to maintain the attitude mentioned above, in seconds. Participants who cannot carry out the above attitude will be declared a failure and given a score of zero (0).

### 3. Sit Up Test (Sit Up) for 60 seconds



- Purpose Measure the strength and endurance of the abdominal muscles.
- Tools and facilities.

- 1) flat and clean floor/field,
- 2) stopwatch,
- 3) stationery,
- 4) floor mats/mats etc.

- Test clerk

- 1) time watcher,
- 2) move counter and result logger

- Application

- 1) initial attitude

- lie on your back on the floor, knees bent at a 90° angle with your fingers placed behind your head.
- The other participant presses/holds both ankles so that the feet don't lift.

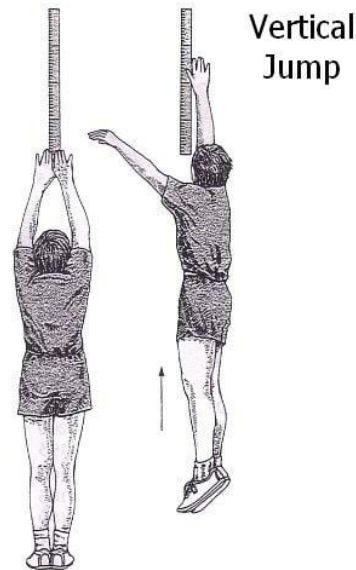
#### 2) Movement

- With the signal "YES" the participants move to take a sitting position until their elbows touch their thighs, then return to their initial position.
- Repeat this movement without stopping for 60 seconds
- Results Recording

- 1) The test movement is not counted if: - the hand grips are released so that the hands are no longer intertwined - the elbows do not touch the thighs - use the elbows to help reject the body 8
- 2) The calculated and recorded results are test moves that can be performed perfectly within 60 seconds
- 3) Participants who are unable to perform this test are given a score of zero (0).

#### 4. Vertical Jump (*Tes Loncat Tegak*)





- The Purpose of this test is to measure explosive power / explosive power.
- Tools and Facilities,
  - 1) Centimeter scale board, dark color, size 30 x 150 cm, mounted on a wall or flat pole. The distance between the floor and the zero (0) on the test board is 150 cm.
  - 2) chalk powder.
  - 3) Whiteboard eraser tool.
  - 4) Stationery.
    - Observer Test Officer and recorder of results.
    - Execution of Tests
    - Initial Attitude
      - First the participants' fingertips are smeared with lime powder / magnesium carbonate
      - Participants stand straight against the wall, feet together, and the scale board is on the right/left side of the participant's body. Raise the hand near the wall straight up, palm affixed to the scale board to leave a finger mark.

#### Movements

- Participants take the start by bending their knees and swinging both arms back.
- Take this test three (3) times without taking a break or may be interrupted by other participants.

#### Results Recording

- 1) The difference between the jump gain minus the vertical gain
- 2) The three differences in test results are recorded
- 3) Enter the result of the largest difference.



**5. 1000 meter running test (13-15 years) / 1200 meters (16-19 years) for men and 800 meter running test (13-15 years) / 1000 meters (16-19 years) for women**



Purpose This test aims to measure cardiovascular, circulatory and respiratory endurance.

• Tools and Facilities.

- 1) Running track.
- 2) Stopwatch.
- 3) Start flag.
- 4) Whistle.
- 5) Piles
- 6) Stationery.
  - Test Officer.
    - 1) Departure officer.
    - 2) Timer.
    - 3) Recorder of results.
    - 4) Supervisors and general helpers.

Test Implementation.

1. Starting Attitude Participants stand behind the start line.
2. Movement
  - On the signal "READY" participants take a standing position, ready to run 10
  - On the signal "YES" the participants run as fully as possible towards the finish line
  - Results Recording.



Time is taken from when the start flag is raised until the participant crosses the finish line.

Results are recorded in minutes and seconds. Example: 3 minutes 12 seconds then written 3' 12"

## SCORING TABLE

**PHYSICAL FITNESS TEST value table  
men 16 - 19 years**

| score | Run 60 Meters | Pull Up | Sit Up  | Vertical Jump | Run 1200 meters | score |
|-------|---------------|---------|---------|---------------|-----------------|-------|
| 5     | s.d - 7,2"    | 19-up   | 41 - up | 73 up         | s.d - 3'14"     | 5     |
| 4     | 7,3" - 8,3"   | 14 - 18 | 30 - 40 | 60 - 72       | 3'15" - 4'25"   | 4     |
| 3     | 8,4" - 9,6"   | 9 - 13  | 21 - 29 | 50 - 59       | 4'26" - 5'12"   | 3     |
| 2     | 9,7" - 11"    | 5 - 8   | 10 - 20 | 39 - 49       | 5'13" - 6'33"   | 2     |
| 1     | 11,1"dst      | 0 - 4   | 0 - 9   | 38 dst        | 6'13" dst       | 1     |

**PHYSICAL FITNESS TEST value table  
women 16 - 19 years**

| score | Run 60 Meters | Bend Elbow | Sit Up  | Vertical Jump | Run 1200 meters | score |
|-------|---------------|------------|---------|---------------|-----------------|-------|
| 5     | s.d - 8,4"    | 41"-up     | 28 - up | 50 up         | s.d - 3'52"     | 5     |
| 4     | 8,5" - 9,8"   | 22" - 40"  | 20 - 28 | 39 - 49       | 3'53" - 4'56"   | 4     |
| 3     | 9,9" - 11,4"  | 10" - 21"  | Oct-19  | 31 - 38       | 4'57" - 5'58"   | 3     |
| 2     | 11,5" - 13,4" | 3" - 9"    | 3 - 9   | 23 - 30       | 5'59" - 7'23"   | 2     |
| 1     | 13,5"dst      | 0" - 2"    | 0 - 2   | 22 dst        | 7'24" dst       | 1     |

## TEST NORM PHYSICAL FITNESS

The results of each test the participant achieved can be described as rough. Why is it called a rough score? This is due to differences in the units of measurement used in each item or test, which include units of time, repetition of movements, and measurements of body height. To get the final result it must be replaced in the same unit, namely VALUE or Value. After the rough results of each test are converted into unit values, it is continued by adding up the scores of the five TKJI items. Total income is used as the basis for ranking the physical fitness of youth.



**TEST NORM PHYSICAL FITNESS TEST**

| no | number of scores | classification of physical fitness |
|----|------------------|------------------------------------|
| 1  | 22 - 25          | very good                          |
| 2  | 18 - 21          | good                               |
| 3  | 14 - 17          | average                            |
| 4  | 10 - 13          | less                               |
| 5  | 5 - 9            | very less                          |

**FORM FOR PHYSICAL FITNESS TEST**

**PHYSICAL FITNESS LEVEL MEASUREMENT TEST**

Name : .....  
 Gender : Men / Women\*  
 Grade : .....  
 Age : ..... year  
 height : .....cm  
 weight : ..... Kg

| No | Test Type   | Results      | Score | Information |
|----|---|--------------|-------|-------------|
| 1  | <b>Run 50 / 60 Meters *</b>   | ..... Second | ..... | .....       |
| 2  | <b>Body Lift Hang (Pull Up)<br/>Test for Men, Bend Elbow<br/>Hang Test for Women :</b><br><br><b>a. Bend Elbow</b><br><b>b. Pull Up</b> | ..... Second | ..... | .....       |
|    | <b>Sit Up 60Second</b>  | ..... Time   | ..... | .....       |
| 3  | <b>Vertical Jump</b>  | ..... Time   | ..... | .....       |
| 4  | - prefix height:<br>..... cm<br><br>- Jump I : .....<br>cm<br>- Jump II : .....<br>cm<br>- Jump III : .....<br>..... cm                 | ..... cm     | ..... | .....       |

|   |   |                              |       |       |
|---|---|------------------------------|-------|-------|
| 5 | cm<br><br><b>Run 1000 Women/1200 Men meters*</b>            | ..... Minute<br>..... Second | ..... | ..... |
| 6 | value amount ( Test 1 + Test 2 + Test 3 + Test 4 + Test 5 ) |                              | ..... |       |
| 7 | Physical Fitness Level Classification                       |                              |       | ..... |

#### 4. Conclusion

Physical fitness is a very important aspect of sports, with a fit body then all kinds of diseases can be avoided. The level of fitness in a person's body can be measured with the right test. The physical fitness test is a valid and accountable measurement method. Various kinds of physical fitness tests can be adjusted according to age and level of education, specifically for admitting new students through the sports achievement track. So that the results obtained in this test can be accounted for and do not become a polemic in the admission process in the sports achievements' track.

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