

# TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION

**Master of Physical Education (M.P.Ed.)**  
Course Material for Students circulation

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## MCC 203

### TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION

**UNIT I** - Introduction Meaning and Definition of Test, Measurement and Evaluation. Need and Importance of Measurement and Evaluation. Criteria for Test Selection Scientific Authenticity. Meaning, definition and establishing Validity, Reliability, Objectivity. Norms Administrative Considerations.

**UNIT II** - Motor Fitness Tests Meaning and Definition of Motor Fitness. Test for Motor Fitness; Indiana Motor Fitness Test (for elementary and high school boys, girls, and College Men) Oregon Motor Fitness Test (Separately for boys and girls) J CR test. Motor Ability; Barrow Motor Ability Test Newton Motor Ability Test Muscular Fitness Kraus Weber Minimum Muscular Fitness Test.

**UNIT III** - Physical Fitness Tests Physical Fitness Test: AAHPERD Health Related Fitness Battery (revised in 1984), ACSM Health Related Physical Fitness Test, Roger's physical fitness Index. Cardiovascular test: Harvard - step test, 12 minutes run / walk test, multi-stage fitness test (Beep test)

**UNIT IV** - Anthropometric and Aerobic-Anaerobic Tests Physiological Testing: Aerobic Capacity: The Bruce Treadmill Test Protocol, 1 .5 Mile Run test for college age males and females. Anaerobic Capacity; Margaria Kalamen test, Wingate Anaerobic Test, Anthropometric Measurements: Method of Measuring Height: Standing Height, Sitting Height. Method of measuring Circumference: Arm, Waist, Hip, Thigh. Method of Measuring Skin folds: Triceps, Sub scapular, Suprailiac.

**UNIT V**- Skill Tests Specific Spots Skill Test: Badminton: Miller Wall Volley Test. Basketball: Johnson Basketball Test, Harrison Basketball Ability Test. Cricket: Sutcliff Cricket test. Hockey: Friendel Field Hockey Test, Harban's Hockey Test, Volleyball, Russel Lange Volleyball Test, Brady Volleyball Test. Football: Mor-Christian General Soccer Ability Skill Test Battery, Johnson Soccer Test, Mc-Donald Volley Soccer Test. Tennis: Dyer Tennis Test.

### REFERENCES

- Authors Guide (2013) ACSM's Health Related Physical Fitness Assessment Manual, USA: ACSM Publications
- Collins, R.D., and Hodges P.B. (2001) A Comprehensive Guide to Sports Skills Tests and Measurement (2nd edition) Lanham: Scarecrow Press
- Cureton T.K. (1947) Physical Fitness Appraisal and Guidance, St. Louis: The C. Mosby Company
- Jenson, Clayne R and Cynt ha, C. Hirst (1980) Measurement in Physical Education and Athletics, New York, Macmillan Publishing Co. Inc,
- Kansal D.K. (1996), "Test and Measurement in Sports and Physical Education, New Delhi: DVS Publications
- Krishnamurthy (2007) Evaluation in Physical Education and Sports, New Delhi; Ajay Verma Publication
- Vivian H. Heyward (2005) Advance Fitness Assessment and Exercise Prescription, 3rd Edition, Dallas TX: The Cooper Institute for Aerobics Research
- Wilmore J H and Costill DL. (2005) Physiology of Sport and Exercise: 3rd Edition. Champaign IL: Human Kinetics

- Yobu, A (2010), Test, Measurement and Evaluation in Physical Education in Physical Education and Sports. New Delhi; Friends Publications



## UNIT – I

### MEANING OF THE TERMS, MEASUREMENT AND EVALUATION

#### **Test:**

Test refers to any specific instrument, procedure, or technique used by a test administrator to elicit a response from the test taker. It involves first defining the characteristics to be measured and then selecting the instrument with which to measure it. Paper and pencil instrument (written test) attitude scale, physical devices such as stop watches, tape measures, skinfold callipers, treadmill and bicycle ergometer are common instruments used by physical education teachers.

**Measurement:** Measurement is the collection of information on which a decision is based. Measurement takes place when a test is administered, and a score is obtained. If the test is quantitative, the score is a number. If it is qualitative, the score may be a phrase or a word such as excellent or it may be a number representing a phrase or word. Measurement determines the degree to which an individual possesses defined characteristics. In short, the purpose of measurement is to collect information.

“Measurement in an evaluative procedure for collection of data. In other words, measurement is a part of evaluation, it is qualitative/procedure using tools or instrument” - Sheehan

**Evaluation:** Evaluation is a process that uses measurements by using the measurements, decisions are made it is the process of making qualitative judgement based upon measurement evidence. The evaluation is a dynamic decision-making process focusing on changes that have been made. This process involves: 1. collecting suitable data (measurement) 2. Judging the value of these data according to some standard. Evaluation is the act of comparing the quantity of attributes possessed by students, teachers, or educational environments with other students, teachers or educational environments – Sheehan

#### **Need and Importance of Measurement and Evaluation in the field of Physical Education:**

The need and importance of measurements and evaluation in the field of physical education are: 1. Motivation 2. Diagnosis and prescription 3. Prediction 4. Classification 5. Psychomotor learning 6. Achievement 7. Programme evaluation 8. Grading 9. Guidance and 10. Research

**1. Motivation:** Test is frequently administered for motivational purposes. Successful achievement of importance standards can encourage one to achieve higher levels of performance. The skill tests may encourage the students to improve their skills further. Skin fold measure motivate overweight pupils to lose weight. It can motivate the students to practice skill with greater intensity. The comparison of current score with a previous score may be a motivational factor to the students.

**2. Diagnosis and Prescription:** Tests can be used to find weakness so that individual remedial work can be given and formulate a prescription for correcting these weaknesses. Adapted physical education teachers frequently prescribe corrective activities for students.

**3. Prediction:** Test results can predict one's level of achievement in future activities. Prediction is like placement, but it differs from placement in helping the students to select the activity they are most likely to master.

**4. Classification:** Tests can be used to place students in classes or groups according to their abilities placing them in homogenous groups to facilitate instruction.

**5. Psychomotor learning:** Performance feedback is essential for learning to occur. Through the use of lines, rope and targets, sports skill tests often provide greater performance feedback than is available in the natural sports environment and to create an effective and practical situation.

**6. Achievement:** Test is used to assess the achievement. It is the final ability level at a designated time and is sometimes relative to a standard norm criterion.

**7. Programme Evaluation:** The result of participants can be used as evidence to evaluate programme.

**8. Grading:** Sound Grading practices are based on the use of well-developed objective and subjective tests, because grade represent the symbols of achievement.

**9. Guidance:** A series of test scores can provide cumulative records to provide a complete picture of an individual and better counselling.

**10. Research:** The research uses of the test results are many and varied and provide the data that are analysed in order to answer the problem under investigation.

**Criteria for selecting Tests:** There are three general evaluative criteria:

- |                            |                               |                                      |
|----------------------------|-------------------------------|--------------------------------------|
| 1. Scientific Authenticity | 2. Administrative feasibility | 3. Educational applications          |
| 1. Validity                | Economy (cost & time)         | 1. Test in major recreational Sports |
| 2. Reliability             |                               | 2. Sports skills                     |
| 3. Objectivity             |                               | 3. Physical fitness                  |
| 4. Norms                   |                               | 4. Screening test                    |
| 5. Duplicate from          |                               | 5. Social fitness                    |
| 6. Standardized direction  |                               |                                      |

**Validity:** A test or measuring instruments is valid if it measures what it is supposed to measure. For example, chin-ups are a valid measure of arm strength and endurance because bicep strength and endurance are necessary to do a chin-up.

**(a) Concurrent Validity:** is the degree to which a test correlate with a criterion test which has already been established as valid test of the attributes of interest.

**(b) Predictive validity:** is the degree to which criterion behaviour can be predicted using a score from a predictive test. Predictive evidence demonstrates the degree to which a test can predict how well one will do in a future situation.

**3. Construct related validity:** can be defined as the degree to which a test measures an attribute or trait that cannot be directly measured e.g.: (Anxiety heart rate – blood pressure etc.)

**Methods of Establishing validity:**

1. Subjective rating
2. Previously validated test
3. Composite scores
4. Tournament standing
5. Face validity

**1. Subjective Rating:** is given by the teacher to use in grading. Then used to establishing validity, they are given at least three judges and often five or seven. The tennis serve will provide an example. The techniques of the serve, its execution, force form accuracy and the will the like will be noted for each student by three judges. Then the same students are given a service placement test. Then the composite is average of three judges rating is compared with the objective service placement test. Score for each student. Two assessments are available for each student. They are correlated and the resultant coefficient is used as the basis for interpreting the validity of the service placement test. If the scores on the test rank of the students is approximately the same order that the judges evaluated them the coefficient will be relatively high and them service test will be said to be valid on the basis of the criterion of judges.

**2. Previously Validated tests:** Some skill tests are already available. This test may be simplified, shortened, revised in some way. The old from of the test is administered to a group and then the new from is given to this same group. If the standing of people in the group remains similar, then the new test may be said to be measuring what the old test was measuring.

**3. Composite scores:** is achieved by administering complete tests each supposedly related to the measurement area in question. The scores are put into same type of comparable from such as T-scores and are added to get one total or composite score. Other tests are then correlated with the composite score, each in turn and in various combination.

**4. Tournament standings:** are designed for beginner's others for advanced players. A round robin or ladder tournament is conducted, and the players are put in proper order playing excellence. Then assigned some numerical value and compared with various tests to which measure the fundamental skills in the game.

#### **5. Face validity (Empirical Judgement)**

1. The 50 yds. dash is considered to be measure of running ability. The tester considers the dash and arbitrarily says it is a measure of running. He concludes this on the basis of logic, common-sense and is called face validity.
2. Reliability: defined as the consistency of an individual in performing a test. If is administered again the next day, the test score would be similar to those obtained on the first day.

Methods of establishing Reliability:

1. Test – retest, 2. Parallel forms, 3 Split half, 4. Rational equivalence

**1. Test - retest method:** Administer tests completely one time and after a given period of time he tests again to the same pupil. Usually, the second administration is on the next day or under similar conditions. The statistical technique used for this is reliability coefficient.

**2. Parallel forms:** Parallel of a test is designed to be identical in every way. They have the same number of items, same level of difficulty, the same direction for administration, scoring, interpretation, and they test the same variable.

**3. Split – half:** Divide the test into two halves and correlate them. This procedure was originally devised from written test but was subsequently used with test in the exercise sciences.

There are several ways the trials could be split. Two possibilities are first half – second half split where two half consist of trials 1 to 5 and trials 6 to 10 or an odd – even split where two halves consist of trials 1,3,5,7 and 9 and trials 2,4,6,8 and 10. The odd-even split used most frequently in test of motor skills to guard against the possibility of fatigue or lack of motivation affecting performance in the last few trials of the test.

**4. Rational equivalence or Kude Richardson:** Method Reliability is established by determining the performance of the pupils from items to items, with in the test is the degree of uniformity with which various persons score the same test. If a test is scored by the instructors, concurrently and independently the result should be similar.

**3. Objectivity in measurement is secured by the following means:**

1. Accruable shared and fully detailed instruction in measuring procedures., 2. Simplicity of measuring procedures., 3. The use, wherever possible of mechanical tools of measurement., 4. Reduction of results to mathematical scores., 5. Maintenance of professional or scientific attitudes by testers. 6. Selecting of intelligent measures carefully trained. 7. Unremitting supervision of measuring procedures by administrative officers.

**4. Norms:** A norm is a standard to which an obtained score may be compared. In other words, a norm is a scale which permits conversion from a raw score to a score capable of comparison and interpretation.

**Construction of Norms:** The first steps would be to test large group of youngsters for whom we want the norms to apply. Let us say that the norms are to be used for high school boys, not only would have to test a large number, but also should have to obtain the scores from the random selection of such youngsters. Samples would have to take from urban as well as rural schools. If the norms were to apply nationally, the random selection should be extended throughout the country. Then the norms may be computed by finding the average score for a particular body size. For example, if norms were to be based upon age, height and weight, the average score of all pupils of a given age in a particular body classification would constitute that norm.

Norm charts themselves must be evaluated. The general evaluated factors are:

1. Sampling procedures for the construction of the norms should be based upon wide distribution of the population.
2. The testing sample school is representative of the population for which the test is intended.
3. Norms should be used for the specific groups for which they are prepared.
4. Norms for standard tests would be based upon a relatively large number of cases.
5. Duplicate Forms: Boys and girls are interested in self-testing activities and are inclined to repeat and practice certain events which interest them and challenge their abilities and skills. Hence it would seem extremely desirable to provide at least two forms of a test measuring a particular element of physical ability.
6. **Standard Directions:** are given, the examiner and the student should be carefully worked out and the exact method of administering particular phases. The directions should be printed, and the illustrations should be accompanied.



## UNIT – II

### MOTOR FITNESS:

**Definition of Motor Fitness:** It is defined as a limited phase motor ability, emphasizing capacity for vigorous work. Aspects of emphasis are endurance, power, strength, agility, flexibility, and balance. It referred to a as efficient performance in running, jumping, Dodging, falling, climbing, Swimming, lifting Weights, carrying loads and enduring efforts in various situations.

It is beyond the reach of any school system desirous initiating a measurement of programme. The tests are functional and objective in measuring fitness. Before dated are collected for evaluation and constructing norms the pupils should have enough experience with test times. The sit up test, administered with the knee straight is used to measure endurance and explosive power of abdominal muscles. To strengthen the abdominal, muscles as in football, the bent knee sit up is a better conditioner than the straight leg sit up.

**Test for Motor Fitness:** Indian Motor Fitness Test, Elementary School: Franklin and Lehsten adopted the Indian test for use in elementary school programme for boys and girls. The administration of the test is the same for both boys and girls, the only difference being in the scoring.

#### **Classification index grouping for Boys:**

	<u>Scale score</u>	<u>upto-609</u>	<u>610-644</u>	<u>645-679</u>	<u>680-714</u>	<u>715-749</u>	<u>750&amp;above</u>	<u>Scale</u>
<u>score</u>								
Excellent	100 to 81	109 to 85	124 to 95	124 to 96	140 to 108	145 to 114	over 159	100 to 81
Good	80 to 71	88 to 72	93 to 80	94 to 81	107 to 92	112 to 97	124 to 108	80 to 71
Good to 68	70 to 61	70 to 59	78 to 65	80 to 67	90 to 75	95 to 80	107 to 98	70
Fair to 48	60 to 41	58 to 33	63 to 34	65 to 38	74 to 42	79 to 45	89 to 54	60
Poor to 21	40 to 21	32 to 8	38 to 4	36 to 8	41 to 9	44 to 12	52 to 19	40
Inferior 20 to 1	20 to 1	6 to 1	3 to 1	7 to 1	8 to 1	10 to 1		17 to 1

#### **Classification index grouping for Girls:**

<u>Scale score</u>	<u>upto-609</u>	<u>610-644</u>	<u>645-679</u>	<u>680-714</u>	<u>715-749</u>	<u>750&amp;above</u>
<u>Scale score</u>						

Excellent	100 to 81	110 to 83	121 to 93	146 to 114	154 to 116	109 to 99	105 to 82	100 to 81
Good to 61	80 to 61	81 to 54	92 to 65	112 to 81	114 to 75	78-68	81 to 57	80
Fair to 40	60 to 41	53 to 26	64 to 36	80 to 48	71 to 34	66 to 37	56 to 33	60
Poor to 21	40 to 21	25 to 2	35 to 8	46 to 14	32 to 1	34 to 4	32 to 8	40
Inferior	20 to 1		6 to 1	13 to 1	3 to 1	7 to 1		20 to 1

**Indiana Physical fitness for high school: Boys and Girls :**

Name	Male				Female				Grade
Boys	Upto 674	675-709	710-744	745-779	780-814	815-849	850-884	880-919	920-up
Girls	SS TS	SM TM	SH THF		MS			MM	MH

Items No. Event Test Period 1. Age to last ½ Yrs., 2. Height (last full inch), 3. Weight in Pounds, 4. Classification index, 5. Straddle chins, 6. Squat thrust (20”), 7. Push up (floor), 8. Sum of Score (5,6,7), 9. Vertical jump to last ½ “, 10. Ind. Phy. Fit Score items 8 times item 9, 11. Percentage of change (Optional)

**Indiana Physical fitness for college Men**

Scale score	chin	Straddle chin	Push-up	Vertical jump	Standing broad jump	Scale Score
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**Oregon Motor Fitness tests:** These were constructed separately for boys at elementary school level, junior high school and senior high school levels.

**Upper Elementary school:** Test items are standing broad Jump; Floor push up and sit ups

**(A) Standing Broad Jump:** This is measure leg power of the boys

**(B) Floor Push Ups:** This is assessing arm and shoulder gridle strength and endurance for boys.

**(C) Knee Touch Sit up:** This is to measure the strength of abdominal muscles for boys.

**Junior and Senior High School:**

The test items include jump and reach, pull ups and 160 yards potato race.

**(A) Jump and Reach:** This is to measure the power of the legs vertically up wards.

**(B) Pull ups:** This is to measure arm and shoulder strength and muscular endurance.

**(C) 160-yard Potato Race:** This is to measure running speed and cardiovascular endurance once.

**Oregon motor fitness test items for girls at high school level are** (1) hanging in arm flexed position (2) Standing broad jump (3) Crossed arm curl ups

(1) **Hanging in arm flexed position:** This is to measure arm and shoulder strength and muscular endurance

(2) **Standing Broad Jump:** This is same as elementary school

(3) **Crossed arm curl-ups:** This is to measure abdominal strength and structure,

**JCR TEST:** is three tests using the vertical jump, chinning and 100-yard shuttle run in which the subject runs a 10-yard course ten times bank boards, approximately 40 degrees with the floor are used to assist the subject in making the 180<sup>0</sup>-degree turn. The test was designed to measure total ability in the performance of fundamental motor skills, including jumping, running, and dodging which in turn contain such basic elements of power as strength, speed, agility and endurance.

The reliability of the test items, according to data collected on two groups of 135 men as follows:

	Jump	Chin	Run	JCR Score
Group A	0.89	0.92	0.80	0.91
Group B	0.89	0.95	0.81	0.94

Validity of the test was first determined by obtaining a multiple correlation of 0.81 with 25 variable criteria, second evidence of its validity was multiple R of 0.90 obtained between it and a 19-variable criterion of physical fitness, consisting of vertical jump, chins, dodging run, sit ups (speed) soft ball throw, 300-yard run, dips broad jumps, flexion, extension, a 50-yard dash and endurance index. A third study of validity was completed between the JCR and AAF motor fitness test which resulted in a corrected r of 0.78. Also, an r of 0.66 was obtained between the JCR and a 17 obstacle, 670-yard obstacle course. On the basis of the validity studies and high reliability of the items contained in the JCR, this test can contribute much in the way of motor fitness test in public school.

**Motor Ability:** The immediate capacity of an individual to perform in many varied stunts or athletic events is referred as motor ability.

**Motor Ability Factors:** Factors contributing motor ability are strength, velocity muscular co-ordination, motor educability, body size height, weight, force, endurance, balance, and agility.

**Constructing Motor Ability Test:** As per Larson's first classification consists of fundamental elements under lying the perforce of the skill such as accuracy, speed, endurance control of voluntary movements, agility, balance, body condition, rhythm and strength.

The second group deals with the fundamental of abilities in running, jumping, vaulting, throwing, kicking, climbing, and catching.

The third area of motor ability is associated with specific sports skills as in gymnastics, basketball and football.

**Barrow Motor Ability test:** Barrow introduced two motor ability test batteries

First Battery: 1. Standing broad jump 2. Soft ball distance throw 3. Zig Zag run 4. Wall pass 5. Six-pound medicine ball put 6. 60yard dash

1. Standing Broad Jump: 2. Soft ball distance throw: This is to measure arm and shoulder co-ordination. 3. Zigzag run: This is to measure agility primarily and speed secondarily. 4. Wall pass: This is to measure hand eye coordination 5. Six-pound medicine ball put: This is to measure arm and

shoulder girdle strength primarily and power, agility arm and shoulder girdle co-ordination, speed and balance secondarily. 6. 60 yards dash: This is to measure speed of individuals

**Second Battery:** 1. standing broad jump 2. Zigzag run 3. Six-pound medicine ball put

Kraus Weber minimum muscular fitness test: The Kraus – weber test of minimum muscular fitness consists of six items. They are proposed as tests which indicate the level of strength and flexibility for certain key muscle group below the functioning of the whole body as a healthy organism seems to be endangered.

**Test Items:** 1. Abdominals plus PSOAS (A+) 2. Abdominals minus PSOAS (A-) 3. PSOAS and lower abdominals minus (P) 4. Upper back (UB) 5. Lower back (LB) 6. Length of back and hamstring muscles (BH)

Test – 1 Abdominal plus PSOAS (A+): The strength of the abdominal and PSOAS muscles are determined. Test 2: Abdominals minus PSOAS (A-): To test abdominal muscles. Test 3: PSOAS and Lower Abdominals: To test the strength of PSOAS and lower abdominals. Test 4: Upper back (UB): To test strength of upper back muscles. Test 5: Lower back (LB): To test the strength of lower muscles.

Test 6: Length back and Hamstring muscles (BH): To test trunk flexibility or floor touch test

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## **INTRODUCTION:**

Decisions, decisions, decisions! The word is full of decisions. And to make decisions, one needs information. The role of measurement is to provide accurate and relevant information to assist in wise decision making. Both educators and physical educators have been concerned with measurement as a necessary component in both research and practical decision making. Physical educators particularly have been, are now, and will continue to be concerned with measuring and evaluating the progress of their students, the value and relevance of the curriculum, and the effectiveness of their teaching. Education is the most important enterprise in our society. Every citizen is in some way directly involved with education. The students, teachers, administrators and parents all work hard toward achieving educational goals, and it is only natural that they should want to ascertain the degree to which those goals have been realized. Just the satisfaction of knowing, the removal of ignorance, i.e. An important reason for evaluation measurement and evaluation are essential to sound educational decision making.

## **MEANING OF THE TEST:**

- Test is the tool to obtain information about the individual.
- Test used only for specific purpose.
- Testing is the tool of measurement.
- Tests are for skills, strength, endurance, knowledge behaviour etc.

## **DEFINITION - TEST**

A Test is a specific tool of measurement and implies (involve) a response from the person being measured

## **MEANING - MEASUREMENT**

Measurement takes place when the ability or skill is to be tested. Here the objective used to measure the particular skill. By measuring one is able to have an idea who is the best as what. Reduced to its simple terms the function of measurement is to determine status. By measurement status of the ability to be measured is determined after the status is known with reference to a particular quality as his group with norms with standard and with himself at different points in time to know there test is needed.

A test that is given for the purpose of improving the learning process will be put to use that use in judging or interpreting the program.

## DEFINITION - MEASUREMENT

“Measurement is a technique of evaluation which makes use of procedures which are generally result in estimative data and which ;characteristically can express its results in numerical form it may be applied to qualitative procedures however when its techniques are objective”.

– HAROLD M. BARROW and  
MCGEE

“Measurement is an aid to the evaluation process in that various tools and techniques are used in the collection of data”.

“A process of making comparisons and relating them to personal needs is an effort to find out where one is needed. – **WILL**

**GOOSE**

## **MEANING - EVALUATION**

Evaluation is a part of the process of education results of measurement refers to the process of interpreting the qualitative judgment based upon measurement evidence but these judgments are usually subjected to careful examination that after require another round of measurement and re-evaluation.

Evaluation is the act of judgment scientifically applied according to some, pre-determined standard since evaluation is a procedure of evaluation.

In the final analysis evaluation becomes a technique judging how effective the educational experience has been for the individual. He is related to philosophy because it indicates the extent to which objectives are not evaluation implies the use of testing and measuring by approaching the hereof of measurement on the light of aims and objectives.

## **DEFINITION - EVALUATION**

“Evaluation may be the need as a process of appraising the activeness or the attachment of educational goals”.

**-TROYER**

**PACE**

“Evaluation is a process of education which makes use measurement techniques which applied to either the product or process result in both subjective and objective measure and used for comparisons with pre-concerned criteria”.

**-HAROLD M. BARROW &  
ROSEMARY MLGEE**

## **“NEED AND IMPORTANT OF MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION**

### **PROGRAMME:**

1. To help teacher assess students' performance.
2. Helps students to evaluate their own knowledge and or skills in various physical activities.
3. Enable the teacher of objectively measure improvement by testing before and after the unit or instruction.
4. Assist the teacher in evaluating different methods of instruction.
5. Provide means to determine the performance within a group and to be inside as to the potential ability other.
6. Motivates students when there appears to be a leveling of interest in the instruction.

7. Rest also helps the teacher to end the unit of institution with high level of interest.
8. Provides basis for the classification of players and teams for practice and competitors.



9. Disguise the needs in relation to body mechanics fitness and motor skill.
10. Help to establish age, sex and grade level norms for use with in a school or district as well as compulsion with the national norms.
11. Collect data for research.
12. Determine the status and changes brought about by physical education for public relation purpose.
13. Help to determine the relative rules of sports activities in terms of meeting desire objective.
14. Determine the needs of individuals with in the programme and the extends to which education all objectives have been accomplished.
15. Enable the teacher to vote his own teaching effectiveness.

## **BASIC PRINCIPLES OF MEASUREMENTS AND EVALUATION IN PHYSICAL EDUCATION**

### **1. DETERMINE PRODUCT**

If evaluation is to be most productive it must be related to the values which have been selected by society as a being most desirable.

The physical education first responsibility is to determine the product or to become award of the product which has refer been determined by societies.

In physical education desired product is the student who has the; qualitative and characteristics of a physical education person.

There are the values and this individual is the and of physical education and all other aspects are means to this end.

### **2. FORMULATE OBJECTIVES**

The place of evaluation cannot be flexed in the educational process until significant goals and purposes have been defined and direction established.

### **Scanning picture**

Physical education objective are formulated to some as guide leading to ward the attachment of the desired product.

They encase the teacher to know what to teach and student to know what to achieve.

The process of measurement must relate the change in the product to the objectives.

Evaluation is used to establish not only the direction of the change but also the date of change and its significance.

These objectives and out comes become the points of reference for physical education process.

### **3. ESTABLISH PROCESS**

The place of evaluation cannot be fixed until values selected and objectives are formulated can it be defined until the process it self is established.

Physical education must establish its process and the process must be developed so that it will fixed the values with have determined.

Process developed occurs, in the light of two things the needs of product which hence been determined and the points of reference which have been established.

Measurement is indispensable in planning the process to help produce the desired product it is also indescribable in determining the status and progress of that product.

#### **4. GATHER DATA FROM PRODUCT AND PROCESS**

Evaluation is a teacher which is used together data for the appraisal of the product and the process.

This principle implies that both subjective and objective technique will be used concept both quantitative and qualitative data.

It does not suggest that most subjective factor in the field can be evaluated to some degree it is have that the less a avidity or corrective leads chart to identification the more subjective the evaluation become and the instruction like all phases of the process should gave the needs of the students. The physical fitness test in most years in an excellent means of developing. The teacher is frequently teacher will he is testing physical area but also in the education is rich in opportunities for value for demands.

#### **5. NECESSARY FOR ADVANCEMENT IN SCIENTIFIC EDUCATION**

Evaluation and measurement and necessary for advancement in scientific physical education.

Any part of the education without evaluation is like a shape of are without a chart and a compares it is impossible to determine what the past and present positions are over more imported to product or chest the cause for the future.

Not only can the practice of measurement be educational to both the student and the teacher but also its results are on valuable when they are applied to improving various phases of the process.

Many time status can be improved only when it is revealed and it can be revealed only through measurement techniques.

#### **6. EVALUATION IS BROADER THEN MEASUREMENT**

There is more to evaluation then measurement merely identifies status while evaluation assimilates, status data and use them to make comparisons with previous ship established to prescribed change for future action the importance of evaluation use in the fact in at after comparison are made there will be follow up objective may be revised program replanted personal and facilitates improved and methodology changed as these changes would be brought about chiefly to create a better teaching and learning situation for the product successful evaluation is confines and both the product and process need to be measured frequently with the ultimate purpose being to produces better physically education students .

#### **7. ALL MEASUREMENT IS NOT OBJECTIVE**

All measurement is not objective much of measurement is not as simple as are the tests which give result that can be recordable in increase, feet times and seconds there are many characteristics which cannot be expressed with objective technique and their results cannot be

expressed in scientific their results are frequently less reliable than be objectively determined and systemizing such measurement as much

as possible there by increasing these relativity qualities and function which can be incite and isolated land quantitative measurement where as these comp ones which are isolated identified as factors are ridicule to measure and themselves only to quantitative techniques.

## **8. DOES NOT TAKE THE PLACE OF TEACHING**

Teaching shall not have the place of teaching but should be used as a technique to that teaching more effective. The basic function of the teacher is instruction most effective all teachers.

Must make use of practical scientific techniques of measurement which have been carefully related for specific purpose.

## **9. USED FOR A SPECIFIC PURPOSE**

Testing for the take of testing in wonderful of every and time for both the teacher and the students measurement definition means to an end not and in itself. There fore it most be used for specific purpose the application of this principles is arcane that measurement will be functional in this light of segment results gathered from the process objective made in methods. In the lights of results gathered when measurement as applied the product the such as classification grading and motivation when measurement been taken down. From the some professional people field and the class room. It has been made functional for the average teacher. This is a essay becomes of teaching is to becomes.

## **10. CONDUCTED BY QUALIFIED PERSONAL**

If evaluation is to be effective it must be conducted by qualified personal who have trashing in its principle and products . His acierates many persons after then the specialist in physical education are inched with evaluation among those are student parents administrators angular personnel teacher aids class room teacher. All of these many share income phase of the evaluation process in which there qualified in the final analysis, how ever it is the speeders in physical education who carry the load in conducting.

He must have knowledge of the availability of measurement instrument. This involves knowing what teachers are available and where the necessary information for these administration can be found.

He must know how to interpret the results of his teaching no only to himself but also to the student the parent and the administrator.

He must have a purpose or the test results for these purpose for both his product and process.

He must have a knowledge of coronary statics to that the can property his test results and so he can contract own test and norms.

He must know how measurement under to the total program and see the relationship between his curricu- lum methodology goals and evaluations.

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UNIT – II  
**CRITERIA, CLASSIFICATION AND ADMINISTRATION OF TEST**

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**CRITERIA OF TEST SELECTION OR CRITERIA FOR EVALUATION**

1. Planned evaluation is essential for effective programming in physical education.
2. Success of programme is based on sound principles are understood and followed.
3. Effective evaluation is primarily based on observing the principles along with those which govern good teaching in general.

**Need for criteria:**

Selection of appropriate tests is necessary if wise application of results is to be realized. The choices of tests should be made in light of the objectives sought.

In order to selecting test the researchers must answer the following questions:

1. Is the test measures the quality (validity) which it is to be used?
2. Is the test administering accurately? (Reliability & Objectivity)
3. Is the test scores have interpret in relative performance (Norms & Standards).
4. Is the test an economical?

Cannot be answered the above questions the selection of test will be difficult.

**Criteria for selecting a test can be divided in to two**

Technical Standards

Practical Standards

- |                |                                   |                        |
|----------------|-----------------------------------|------------------------|
| a) Validity    | a) Administrative Considerations: | b) Development values: |
| b) Reliability | 1) Equipment                      | 1) Physical            |
| c) Objectivity | 2) Time                           | 2) Mental              |
| d) Norms       | 3) Money                          | 3) Social              |
|                |                                   | 4) Utility             |
|                |                                   | 5) After effects       |

**TECHNICAL STANDARDS:**

These standards involve the application of some technical and statistical steps which should accompany each test.

**A) VALIDITY:**

Validity is refers the degree to which a test measures it was designed to measures. In other

words validity means what is claims to measure or intend to measure. Validity means estimate of the degree to which a test measures the factor or factors for which it was designed. Validity is inherent in the purpose of the test. In other words validity is honesty of a test.

For example, in the French short serve test to use to measure ability to serve accurately and low in Bad- minton. Is indeed just that and not test of shoulder girdle strength or of general motor ability. It must be a measure of specific skill the serve. If a test is presented as a measure of the volleyball volley, then, to be valid, it must measure volleying ability and ideally, it must measure it to such a degree that other influenc- ing factors such as height and weight are incidental to the final results.

## Methods of establishing validity

### 1) SUBJECTIVE RATINGS:

Subjective ratings sometimes are given by the teacher to use in grading. When establishing validity, they are given by at least three judges and often five or seven. Ratings generally involve judgements on the form of a performance. The French short serve will provide an example. The technique of serve, its execution, force, form, accuracy, and the like will be noted for each student by three judges. They evaluate on the basis of a rating scale which defines carefully the distinguished points between a performance worth,. As a second step, these same students are given a service test i.e. French short serve test. Then the composite or average of the three judges' ratings is compared with the objective test score for each student. Two are available for each student; they are correlated, and the coefficient is used as the basis for interpreting the validity of the French short serve test. If the scores on the test rank the students in approximately the same order that the judges evaluated them, the coefficient will be relatively high and the service test will be said to be valid on the basis of the criterion of judges' ratings.

Many of the motor tests in the professional literature have been validated on the basis of subjective ratings.

### 2) PREVIOUSLY VALIDATED TESTS:

Some skill tests are created as refinements of other tests already available. The test may be simplified, shortened, or revised in some way. The old form of the test is administered to a group and then the new form is given to the same group. If the standings of the people in the group remain similar, then the new test may be said to be measuring appreciably what the old test was measuring.

### 3) COMPOSITE SCORES:

Composite scores are used generally as a criterion when a broad general type of ability (such as fitness or motor ability) is being measured. They are used also when a test battery is anticipated. The scores are put into some type of comparable form, such as T-scores, and are added to get one total or composite score. Other tests or perhaps even some which were in the composite listing are then correlated with the composite score, each in turn, and in various combinations. The composite score is then used to help select the battery of tests which comes closest to measuring whatever all the individual tests were attempting to cover in their measurements.

### 4) TOURNAMENT STANDINGS:

Tournament standings serve as adequate standards for establishing validity when a high level of skill is anticipated. A round robin tournament is a good style to use, as is some type of ladder

tournament. These are longer tournaments requiring more contests, and may be counted on to put the players in their proper order of playing excellence. Once this standing is set and assigned some numerical value, it can be compared with various tests which measure the fundamental skills in a game. For, example, French short serve test,



and forehand and backhand drives could be validated against tournament standings if these strokes are considered important to overall badminton playing ability.

#### **5) FACE VALIDITY:**

Face validity is an other standard for validating tests and it is a useful one at times. The 100 mts dash is considered to be a measure of running ability if speed of running also means excellence of running. The tester considered the dash and arbitrarily says it is a measure of running. He concludes this on the basis of logic, common sense, judgement, and so called face validity; that is say that one can look at a test and see inherently what is measuring.

#### **B) RELIABILITY:**

Reliability is the second technical standard which the teacher can use when selecting tests. A test is said to be reliable if it is dependable, if similar results will occur when the test is repeated by the same group under like conditions. Reliability is related to the test performance itself. The tester is the same, the students are the same, and the test is the same. It is administered and then re-administered. If the students fall in the same positions on the scale, the test is perfectly reliable. Reliability may be thought of as the repeatability of a test. A student's score should not differ markedly on repeated administrations of the same test.

Countless factors influence reliability. The equipment used in the test may not be of sufficient quality to produce consistent results – a poor inflated ball or mutilated badminton shuttlecock. Averaging scores usually produces more reliable results than taking only the best score. Averaging has a leveling influence on the scores. The directions may be so complicated that the student cannot remember the procedure. The test may be so long as to introduce a fatigue factor. The student may be in a different motivational frame from one to the next. The teacher presents the test in a different way. But if all things are standardized as much as practically possible, the test should prove are to be reliable and therefore worthy of confidence.

### **METHODS OF ESTABLISHING RELIABILITY**

Reliability is also interpreted by using the statistical technique called a correlation coefficient. The reliability coefficient is obtained by correlating one measure of the test with another measure of the same test and thus is judged by an internal and dependent measure. Consequently, reliability coefficients are generally higher than validity coefficients. Reliability coefficients may be derived either by the interclass method suggested by the product-moment correlation or by the interclass approach employed in analysis of variance.

#### **1) TEST-RETEST:**

One method of establishing reliability is to administer the test completely one time and then to give it another time. Usually the second administration is on the next day or two and under very similar conditions and certainly before forgetting practicing, and learning factors become too influential in the results. This method is time consuming and sacrifices some of the interest factor of the students during the second administration. The coefficients would be derived from the Pearson Product-Moment method of arriving at correlation coefficients.]

## **2) SPLIT HALVES (odd and even):**

A time saving and creditable method is to administer the test only once and then correlate the total of the even-numbered trials with the total of the odd-numbered trials. (Example Johnson Basketball skill)

test-throw for accuracy) In a 10 trial test, the 1, 3, 5, 7, 9 trials totaled would provide the second score for the 2, 4, 6, 8 and 10 trials totaled provide second score for the correlation problem. This method required the subsequent use of the Spearman-Brown Prophecy formula to predict what the reliability would be had the test-retest reliability of the whole test on the basis of only half of it.

Formula:  $r_x =$  stepped-up coefficient:  $n =$  proportion of increase in the test  $r =$  split-halves coefficient

$$r_x = \frac{nr}{1 + (n-1)r}$$

The split halve method is appropriate for use with knowledge test because of the large number of items.

### 3) PARALLEL FORMS:

This type of reliability is used generally with written tests. The object is to construct two tests of similar difficulty and content. The students take both tests. If they perform similarly on them and if the two forms of the test really are parallel, then the test may be considered reliable.

### C) OBJECTIVITY:

Objectivity is the degree of uniformity with which various persons score the same test. It refers to the lack of any personal influence of the scorer on the test results. If the test is well standardized and is administered properly, the role of the scorer should not have a noticeable influence on the results. Objectivity is a measure of the worth of the scores and is inherent in the test. If a test is scored by two instructors, concurrently and independently the results should be similar. The correlation coefficient produced from the two sets of scores should be high. This measure which is similar to reliability, changes only one condition in the testing procedure and that is the scorer. The statistical technique employed for ascertaining objectivity is a correlation. For example, the agreement of two timers on a 100 mts, dash should be very good, the agreement of two judges rating a remaining similar then the test call it to be a objectivity.

### D) NORMS:

Norms are the fourth of the technical standards to be discussed. If a test is accompanied by norms, its usefulness is enhanced. A norm is a scale which permits conversion from a raw score to a score capable of comparisons and interpretations. A raw score of 16 is quite meaningless, but if that 16 falls at the 78th percentile or is equivalent to a T-Score of 58, it becomes capable of comparisons and interpretations.

### Characteristics and comparisons of various Normative scales:

1. They should not be accepted at face value.
2. Norms are representative of some larger population.

3. They should be based on a particular type of group which is well identified. For example, T-scores on the AAHPER Fitness test for 11-year-old Boys label the norms.
4. Norms should be based on large numbers of cases. Adequate cases alone do not make good norms but, coupled with proper sampling, they provide a symmetrical distribution.

If the performance of a group is not similar in range and average to the normative group then the norms are not appropriate and should not be used for interpretative purposes. It would be far better for the teacher to construct norms based on the scores of his own students.

## **B) PRACTICAL STANDARDS:**

The practical standards to be considered when selecting test are more important than the technical ones. They are important when preparations are being made to give a test, when it is actually administered, and when the results are used. The practical standards can be divided into two I. Administrative Considerations II, and development values.

### **I. ADMINISTRATIVE CONSIDERATIONS**

#### **1) Equipment:**

The equipment and supplies should readily available and inexpensive. A test which requires an elaborate and expensive piece of equipment will not be used often in a school situation. Most tests require the use of some equipment, but it should be the kind that is either on hand or can be easily and economically constructed. Sports equipment such as balls, rackets, and the like should be of good quality to help the performance of the students.

#### **2) Time:**

The equipment, floor and wall markings, and all preliminary arrangements should be refined to such a degree that they can be efficiently readied with a minimum of extra preparations. A test which requires many important markings calling for an excessive amount of the teacher's after-school time will seldom be the test he will select to administer.

Time required to administer the test will be a factor to consider. Group testing, partner testing, and station testing illustrate the efficient use of personnel to streamline the time requirements for administering tests. Not many tests will be used which require an individual performance of several minutes while the remaining students wait their turns. Most test batteries can be administered to an entire class in one or two class periods if well planned and organized.

#### **3) Money:**

The researcher should collect high quality and accurate measurement tools over a period of time and expensive equipment. A budget allotment should be designated for measurement equipment just as for sports equipment, supplies, uniforms, records, first-aid supplies, and the like.

#### **4) Utility:**

The test results should be readily usable. If norms are available and appropriate, the raw scores should be converted quickly. No complicated formula should be necessary for each step of the conversion. The quicker the results are available to the students in some meaningful form, Profiles, graphs, and charts can be used by the instructor to help the students understand their performance.

#### **5) After Effects:**

All out performance on some items will cause muscle soreness and discomfort lasting two or three days. Example 12 minutes run test – by Cooper. Items inappropriate for a certain group

might cause a

student to develop a mental block against all testing. Such traumatic experiences are unnecessary and should be prevented, and the examiner should be on the alert to prevent them.

## TYPES OF TESTS

### 1) STANDARDIZED TESTS:

Standardized tests are considered those which have been scientifically constructed and which may be accompanied by norms. The validity and reliability of standardized tests have been established.

Standardized tests have several characteristics:

- a) They provide valid and reliable measures.
- b) They show what content and degree of difficulty can be expected for certain groups.
- c) They provide good tests.
- d) They provide tests for a great variety of activities.
- e) They are in print somewhere for distribution.

### 2) TEACHER – MADE TESTS:

Teacher – made tests are more prevalent and are the work of teachers for their local purposes. They also have certain characteristics:

- a) They fit the unit for which they're planned in content and difficulty.
- b) They may or may not be scientifically constructed, depending on whether or not the teacher has ascertained, their reliability and validity.
- c) They may or may not be accompanied by local norms, depending on whether or not the instructor has collected the scores year after year and prepared norms.
- d) They usually are prepared quickly and consequently. Probably not so well constructed as standardized tests.
- e) They generally are not available to others. They are used only locally.

### 3) OBJECTIVE TESTS:

Objective tests require brief responses of recall or recognition and generally are concerned with smaller pieces of information. They have certain characteristics:

- a) Good objective tests are difficult and time consuming to prepare.
- b) They may be quickly, efficiently, and objectively created.
- c) They can be validated and revised.
- d) They are reliable.
- e) They may test for several types of information such as rules, strategy, techniques, terminology, and history of any activity.

f) ) They lend themselves to follow-up lessons to correct errors and misconceptions.





- g) They too frequently measure only superficial and trivial facts.
- h) They should rank the students rather accurately according to their understanding and knowledge of the activity.
- i) They encourage guessing.
- j) They eliminate Huffing.
- k) They clearly define the task to be done.

### **3) WRITTEN TESTS:**

If the individual is to be evaluated as a whole, measurement techniques should be applied to all three domains of learning Psychomotor, Cognitive, and affective.

In the area of cognitive learnings, Oral tests and observation of the student actual performance have been used, but in general both methods are too time-consuming for practical use.

Written tests are the best means of measuring knowledges and understandings in evaluating the mental objective in physical education.

It might be well for the student to keep in mind that there cognitive learnings are inter-related with psychomotor and affective.

Even the test results in these areas tend to have some relationship.

Written tests may be classified two ways. From the stand-point or format they may be grouped into essay and objective. From the standpoint of construction they may be grouped into standardized or teacher-made.

### **SKILL TESTS:**

The early form of Skill testing was more of the general or fundamental skill type but as the new design in test construction through statistical procedures became more prevalent, skill test development became common.

Skill tests for achievement in specific sport. The general procedure was to determine statistically a few simple test items to measure the total activity of that sport.

Tests were developed for most sports, both team and individual, and in some cases norms were established for age and sex groups

### **ESSAY TEST:**

An essay test is any test on which students answer each item with whether information they choose and write their answers in sentences. The answer to an essay item may be short or long, depending on how much the students know and how full an answer the item requires. Essay tests call for a written answer which involves the organization of information to be presented in logical paragraph form. Essay questions are usually general and test the ability of the student to write the material to be covered.

### **Characteristics:**

- 1) They usually involve only five or six questions and thus a limited sample of the subject

content.

- 2) They may be constructed quickly.

- 3) They are difficult to grade objectively and reliably.
  - 4) They usually require more time to answer than objective tests.
  - 5) They may test general explanations, interpretations, and problem solving concepts.
  - 6) They are usually good for creative and exploratory testing.
  - 7) They promote good study habits.
- 1) Norm-referenced tests are designed by the test developer to measure individual differences so one person's score on such a test can be compared to the scores of other similar persons who have taken the same test.
  - 2) Criterion-referenced tests are test scores are compared, not to each other, but to a standard that is referenced to a criterion behaviour. - Barrow MCGee Tritschter  
Measurement is the collection of information on which a decision is based evaluation is the use of measurement in making decisions.
  - 1) Norm-referenced standard that is used to judge an individual's performance in relation to the performances of other members of a well-defined group, for example, 11-year-old boys. Norm- referenced standards are developed by testing a large number of individuals of a defined group.
  - 2) Criterion-referenced standards are used to determine if a student has attained a specified level of skill.

## ADMINISTRATION OF TESTS

For administering the tests the following suggestions are listed under three headings;

- 1) Advance preparation,
- 2) Duties during testing and 3) Duties after testing.

### I) ADVANCED PREPARATION

- a) Selection of Tests:

The proper selection of measurement techniques is the first consideration in administering tests. Selection of the exact test will depend upon the type of information which is sought by the teacher. Tests should be selected with certain considerations in mind:

First, it is necessary to know whether the product of education, or the process is to be measured. Second education process is to be evaluated, it is necessary to know what education procedure is being considered and for what purpose the results will be used. It is possible to evaluate the teacher and staff, the methodology, the curriculum, or the total program. If the product is to be measured, it necessary to have in mind the purpose for which the results will be used, such as classification, grading, or diagnosis.

Third the must be selected in the light of certain administrative procedures.

Fourth, the test must have high standards in the other selective criteria of validity, reliability, objectivity, utility, and norms. These criteria should be accompanied by good physiological and

psychological reactions on the part of the student.

**b) Knowledge of the test:**

The director of testing should have a sound knowledge of the test which is to be used and a thorough understanding of its administrative procedures. Procedures and techniques should be studied carefully. The experienced examiner would profit by writing out all the necessary details. Frequently this can be done on 3 by 5 – or 5 by 8 – inch cards. It is a good plan for a diagram to be drawn of the complete lay-out. This lay-out could be posted at a convenient place for the benefit of the students.

**c) Equipment & Facilities**

The proper use of space, equipment, and materials can reduce the amount of time needed for conducting tests. Proper space planning reduces confusion and avoids crowding. Furthermore details about the following suggestions are important:

**d) Course and Markings:**

They should never be modified by the inexperienced tester, and by good tester only when he is assured that the proposed changes will in no way affect the scores or the use of scores. A football field which has been marked off into 5-yard zones provides an excellent lay-out for throwing and kicking events for distance. Perhaps the simplest way to set up the standing broad jump station is to use an already established line on the floor for the take-off line and fasten a tape measure to the floor at right angles to this line. Lines on walls or floors can be put on with rapid-drying washable paint or with masking or adhesive tape. Targets can be made in the same manner or they may be painted on canvas, oil cloth, plastic, mats, or plywood.

**e) Equipment:**

All equipments such as horizontal bars, parallel bars, chinning bars, targets, ropes, poles, jumping standards, and special devices should be available and put in place before testing is begun. Safety is an important consideration in the placement and use of equipment.

**f) Materials:**

The materials might include such items as stop watches, balls, tape measures, signs, string, cord, chalk, pencils score cards, and tongue depressors for markers.

**g) Preparation of Score Cards**

Scoring forms should be designed and prepared in advance. The various score cards are as follows:

**(i) Class Roll Sheet:**

This score sheet has names of all class members in alphabetical order with spaces for their scores and other pertinent data which may be needed. This type of score card can be used more readily when there is one examiner who administered and scores all test items, or when the station-to-station method is used and each station has class roll sheets.

(II) SQUAD CARDS:

The squad card is used sometimes when the squad rotate from station to station and the squad leaders carry the squad cards with them.

(iii) Individual Score Cards:

Perhaps the best method for recording scores and certainly the most flexible, since the student can move about independently of his group, is the individual score card. This card usually is designed for the specific test and generally provides source for such information as the student's name, class, date, age, weight, height, raw scores and converted score. If the scores can be summed, there should be a place for composite score. Generally a 3 by 5 card will serve the purposes for most score cards but in some cases the 5 by 8 is better.

**h) Preparation of Standardized Directions**

In the administration of most tests there will be two types of directions necessary. One set should be prepared for the trained test administrators, so that will know exactly how to explain, demonstrate administration and score their particular test items. The second set of directions concerns the instructions given to the students for taking the test. The directions should be standardized and prepared in written form.

**i) Preparation of the Testing Area**

First, the stations should be arranged to accommodate the flow of traffic. A diagram should be arranged to and should be drawn showing the floor plan and space requirements.

Second, the stations should be placed from the least strenuous to the most strenuous, or spaced so that alternate sets of muscle groups are tested unless otherwise specified.

Third, the station should be clearly identified by a name of a number.

Fourth, a factor of safety should be a consideration in the placement of events which might be dangerous if they are permitted to overlap.

**j) Selection of Organization and Administration Procedures**

There are three main ways to organize the class, or subjects.

**(i) Mass Testing:**

The most effective use of time allotment is made when a large number of students are tested at one time. There are two variations of this method. First, the students may be paired into partners, and while one half of the group is being tested, the other half acts as scorers and recorders. This method is time saving and should be used whenever the test items are adapted to its use. In the second variation, all members of the class can be given the test at the same time which makes it a greater time saver than the first-mentioned method. This system is used when it is feasible for each student to score himself.

**(ii) Squad method:**

In this method the subjects were divided into squads and each squad worked independently. Either squad cards or individual cards may be used to record scores. After



each squad member has been tested, the squad can rotate to another test station and begin testing there.

(iii) Station-to-station method:

Sometimes in large groups where the order of events is not important or where some stations require more time than others, the best method of organization is on a station-to-station basis. Here the student rotates from one station to another station as an individual and does not remain with any particular group or squad. He is scored by a trained assistant and must have an individual score card to carry with him.

(iv) Combinations:

Sometimes it may be best to combine two of the above methods. For example, the squads can be rotate from one test to another on a station-to-station basis. On occasions the mass technique may be used for one or two items and then a shift made to the squad or station-to-station method for the other test items.

## **k) Scoring**

One of the most important considerations in testing is the observation of performance and the recording of results. Results must be observed carefully and recorded quickly and accurately. Many tests require the scorer to have specialized training.

(i) By Instructors:

This method is perhaps the most time consuming and should be used only when the situation dictates. The instructor may do the scoring when one squad is being tested while the other squads are participating in regular class activity, or when the nature of the test is such that only a highly specialized person can administer in – Posture and nutrition type tests would be in this category.

(ii) By Partners:

This method is generally used when the tests are administered on a mass basis. The class is divided into partners and, while an examiner administers the tests and supervises them, scores are judged and recorded by the partner who is not taking the test at the time. Partners may also do the scoring within the squad. When this partner method of scoring is employed, the director of testing, in his explanation, must emphasize the scoring techniques to be followed.

(iii) By Squad Leaders:

When tests are administered on a squad basis generally they are administered and scored by a squad leader. The training of this squad leader may be done at a training session prior to the period of testing. This system workd especially well where a student leadership program is in operation and where leaders are already trained in the techniques of leadership.

(iv) By Trained Testers:

When tests are administered on a station-to-station basis, scoring is generally done by

trained examiners who have been instructed in methods of judging and scoring at a training session period to the day of period of testing. These trained individual may be students, faculty members, professional students from a teacher-training institution, or interested non-school personnel.

## **I) Orientation of Students**

The students should be instructed in the purpose of the tests and the manner in which the test results will be used by the teacher. Special directions should be given the student regarding equipment, dress to be worn, shoes, pencils, score cards, etc. If student receive proper orientation, however, they will know that the tests will have a useful purpose and that the test result will be used.

## **m) Training of Student Leaders And Scorers**

If highly qualified people are available, they should be used to assist in the testing program, when students are used to assist in the test administration process, some training is necessary. They should be impressed with the necessity for being accurate, uniform, explicit, and alert. If it is possible, the student assistants should go through the entire test as subject. Special emphasis should be placed on scoring procedures. This is especially true when specialized equipment is to be employed, such as stop watches and dynamometers. Some practice in the use of these instruments is essential.

## **II) DUTIES DURING TESTING**

### **1) Last minute Check:**

A good instructor is always trying ways to gain valuable minutes for teaching and instruction. When the testing period is at hand, the instructor should begin by making a last minute check of equipment, supplies, and facilities which are to be used. When the subjects has assembled, everything should be ready and in a place so the testing procedure may start immediately without loss of time. If the group is quite large, the students should be staggered according to alphabetical order or some comparable way.

### **2) Explanation:**

The standardized directions which have been prepared, made available to the examiners, and followed exactly as written. The directions for the student should be read or given to the student in an interesting and enthusiastic way.

### **3) Demonstration:**

A demonstration of each test item is usually desirable. Techniques to be demonstrated should be planned and learned in advance; otherwise, it may be like the blind leading the blind. He should gain the attention of the entire subjects by arranging all, so they can see the demonstration and hear the explanation. It is usually well to demonstrate the all items before testing is done. Subjects should be given an opportunity to ask questions.

### **4) Warm-up:**

As soon as the explanation and demonstration are completed and testing is to be begin a short warm-up exercise period should be administered to everyone. This is not only a safety precaution, but it also seems to insure better performance on the tests.

### **5) Administration:**

This is the period where all the planning and preparation is brought to realize of aims. The matter of student discipline is an important consideration. Administration should be planned so that

all the students may be kept active most of the time. Crowding around a particular station is an invitation to behaviour problems. Certain matter will inevitably arises equipment required, a chalked line replenished, new masking tape put in position, a missing score card replaced, or over-crowding at one or more stations relieved.

**6) Motivation:**

In the first place, the test should be presented in such a manner that the students will stimulated and will want to excel. In general, a student will do better when he is told the purpose of the test and the method of scoring. The following suggestions are normally followed by examiner; showing an interest in a student's performance, encouraging greater effort, praising good performance, and reminding students of the correct technique and rules.

**7) Safety:**

Testing is accompanied by excitement and enthusiasm on the part of a student. Safety precautions may be emphasized during the orientation period. Class discipline must be maintained. A warm- up period is essential to prevent pulled muscles. If students have weak joints at the knee or ankle, certain tests like the squat jump or the dodge run may be contra indicated. Leaders should be warned to look for certain hazards and trained to prevent accidents. Medical exams should precede the administration of all strenuous physical tests.

### **III) DUTIES AFTER TESTING**

**1) Collecting Score Cards:**

If the class or squad card is used, the collection of score cards presents little problem. When individual score cards are used, they may be collected by the squad leader from his respective squad members, by the trained assistants at the last station where the student was tested.

**2) Converting Raw Scores:**

When tests are administered and the results scores, a raw score is obtained. These raw scores are generally meaningless so it becomes necessary in most cases to convert them to something more meaningful, or to compare them with some predetermined standard. The most common methods of conversion are to percentiles, some type of standard score, or a weighted score. Score cards should have spaces for the recording of these converted scores.

**3) Comparing Results with Norms and Constructing Profiles and Graphs:**

The composite scores in turn are ferferred to a composite norm table for placement of each subject into levels or categories. This provides a norm of the composite scores. If it is feasible, the score cards should contain the norms so the student's rating can be checked directly on the card.

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**UNIT – III**  
**PHYSICAL FITNESS TEST**

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PHYSICAL FITNESS TEST  
AAPHERD YOUTH FITNESS  
TEST

American Alliance for Health, Physical Education, Recreation and  
Dance The test consists of six test items

S.No	Test Items	Components
1. a.	Pull ups for boys	Arm/Shoulder muscular Endurance
1.b	Flexed arms hang for girls	Arm/Shoulder muscular Endurance
2.	Bent knee sit ups	Abdominal/ hip muscular Endurance
3	Shuttle run	Agility (speed and change of direction)
4	Standing Broad Jump	Explosive power of leg extensor muscles
5	50 yard dash	Speed
6	600 yard run/walk	Cardio Respiratory Endurance

**1. a PULL UPS FOR BOYS**

PURPOSE:

To measure the arm and shoulder girdle muscular endurance

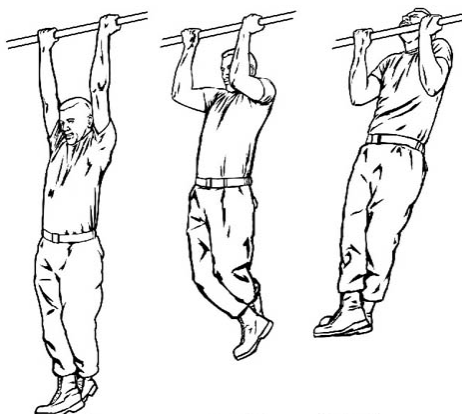
LEVEL AND GENDER:

10 to 17 Years High school boys

FACILITIES AND EQUIPMENTS:

Horizontal bar, 1½ inch diameter, Vertical bars.

**COURSE AND MARKINGS:**



## **Pull-Ups**



**DESCRIPTION:**

The bar should be adjusted to the height of the subject. The students hold (palms forward) the bar in standing position. After the teacher command students pull the bar and go upward until the chin over the bar. Then come down until the arms are straight. This movement should be repeated as much as possible.

**RULES:**

1. The student is not allowed to kick, jerk.
2. Chin over the bar
3. Elbow extended
4. Swinging is not allowed

**SCORING:**

Number of correct pull-ups executed by the subject. One mark is given for each correct pull ups.

1.b FLEXED ARM HANG FOR GIRLS

**PURPOSE:**

To measure the arm and shoulder girdle muscular endurance

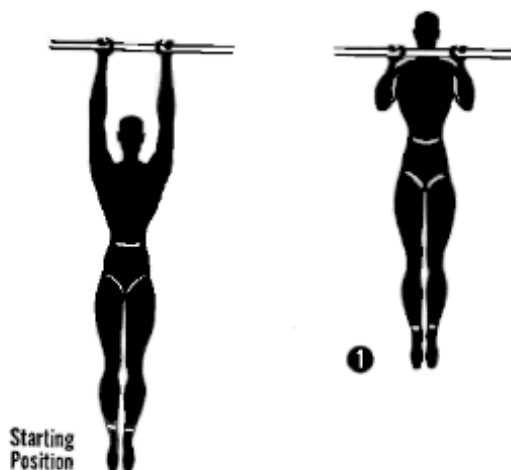
**LEVEL AND GENDER:**

10 to 17 Years High school Girls

**FACILITIES AND EQUIPMENTS:**

Horizontal bars, 1.5 inch diameter, vertical bars and stop watch.

**COURSE AND MARKINGS:**



**DESCRIPTION:**

Height of the bar is adjusted to equal each girl's standing height. An over head grasp is used. With the help of the two spotters (one front and one behind). The student raises her body and chin

is above the bar. The elbows are flexed and the chest is close to the bar. The girls hold this position as long as possible.

RULES:

Start the stop watch when the student reaches the hanging position .stop the watch when:

1. The students chin touches the bar
2. The student head tilts backward to keep the chin above the bar, or
3. The students chin falls below the level of the bar.

SCORING:

Time is recorded to the nearest second the hanging position is held.

## 2. BENT KNEE SIT UPS

### PURPOSE:

To measure the abdominal/ hip muscular endurance

LEVEL AND GENDER:

High school boys and Girls

FACILITIES AND EQUIPMENTS:

Stop Watch and Mat

COURSE AND MARKINGS:



### DESCRIPTION:

The student assumes a lying position with knees bent, feet on the floor. Heels no more than 12 inches from the buttocks (knees bent at an angle less than 90 degrees). The student's hands clasped behind neck and elbows squarely on mat / floor. The feet are held down by a partner. To perform the sit-ups, students bring the head and elbows to knees. Then returning to supine position the elbows should touch the floor each time.

RULES:

No sit-ups are counted when the student does not keep the finger clasped behind neck. Bring the elbows forward in starting to sit-ups, without pushing off the floor by elbow.

Return to the starting position with elbows flat on the surface before sitting up again.

SCORING:

The score is the number correctly executed sit-ups performed in one minute.



### 3. SHUTTLE RUN

**PURPOSE:**

To measure the agility and speed and change of direction.

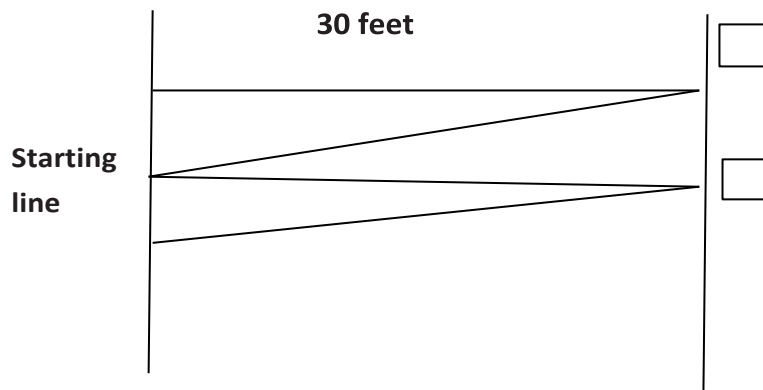
LEVEL AND GENDER:

10-17 years High school boys and Girls

FACILITIES AND EQUIPMENTS:

Chunnam for marking, measuring tape, stop watch, wooden blocks-2nos (2 X 2 x4 inches)

COURSE AND MARKINGS:



**DESCRIPTION:**

Two parallel lines are marked on the floor 30 feet apart. The wood blocks are placed behind the second line. The student's starts from behind the first line, tests consists of running to the blocks and bring them back to the starting line one at a time and placing them behind the starting line.

TESTING PERSONNEL:

A timer and scorer

RULES:

Must pick the block and places it right places

**SCORING:**

Record the time of the best of the two trials to the nearest tenth of a second.

### 4. STANDING BROAD JUMP

**PURPOSE:**

To measure the Leg explosive power of the person



LEVEL AND GENDER:

10-17 years High school boys and Girls

FACILITIES AND EQUIPMENTS:

Gymnastic hall, foam mat, measuring tape, stop watch

COURSE AND MARKINGS:

A take off line is drawn on the floor. The students take a position with toes just touching the take off line, feet slightly apart. Taking off from both feet simultaneously, he jumps as far as possible, land on the both feet. In jumping he crouches slightly and swings the arms to aid the jump.

RULES:

Do not touching the starting line at the time of jump and the students must land in his full feet.

SCORING:

Scoring is the distance to the nearest inch from take off line to the closest heel position. Best of three trails is recorded.

### 5. 50 YARD DASH

PURPOSE:

To measure the speed of a subject.

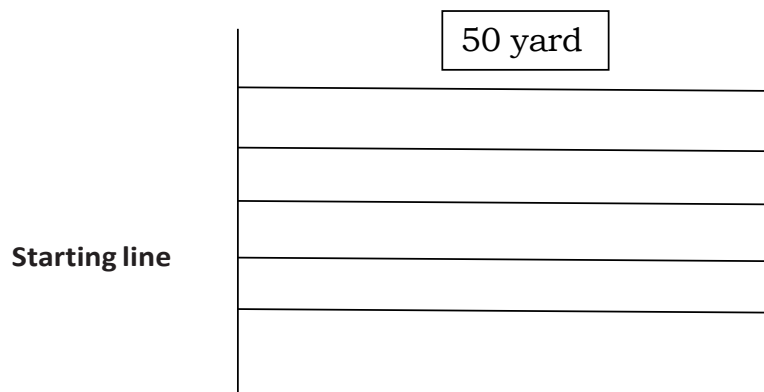
LEVEL AND GENDER:

10-17 years High school boys and Girls

FACILITIES AND EQUIPMENTS:

Chunnam powder, stop watch

COURSE AND MARKINGS:



**DESCRIPTION:**

The student takes a position behind the starting line. The starter uses the commands "Are you ready?" and "Go". The word "Go" is accompanied by a downward sweep of the starter's arm as a signal to the timer. More than one pupil may run at a time if sufficient stopwatches are available.



TESTING PERSONNEL:

**Starter and timer**

RULES:

The student should not cross the starting line at the time of start.

SCORING:

The score is recorded in seconds to the nearest tenth of a second.

## **6. 600YARD RUN**

### **PURPOSE:**

To measure the Cardio respiratory endurance of the subject

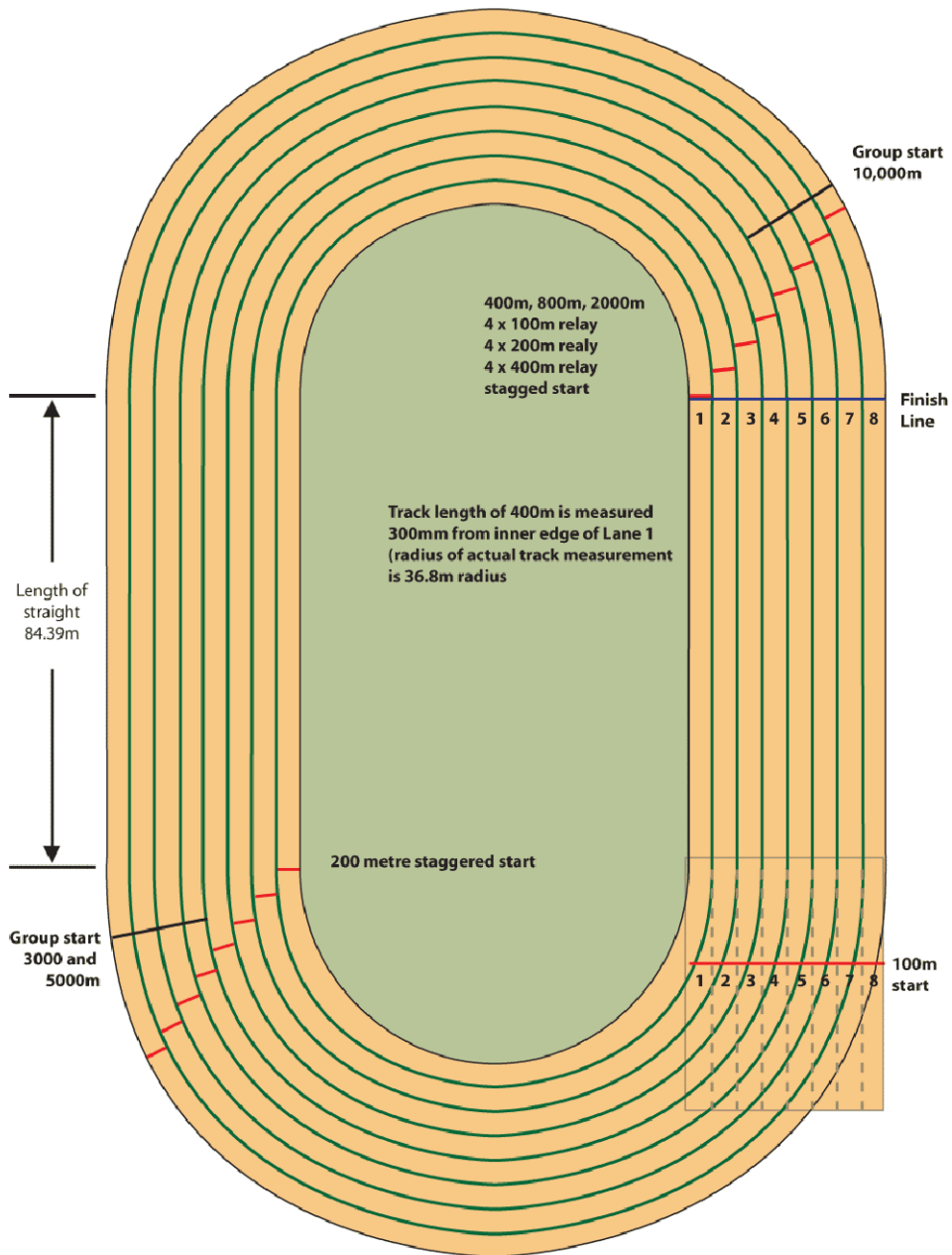
### **LEVEL AND GENDER:**

10-17 years High school boys and Girls

### **FACILITIES AND EQUIPMENTS:**

Chunnam powder, stop watch, 400 Meter track or subsequent place to conduct 600 yard running test

### **COURSE AND MARKINGS:**



The student uses a standing start. At the signal “READY?” and ‘GO’The students starts running the 600 yard distance. The running may be interspersed with walking.

TESTING PERSONNEL:

Starter and timer

RULES:

Walking is permitted

SCORING:

The student score is the elapsed time between the starters signal and the instant the pupil crosses the finishing line. Scores are recorded in minutes and seconds.

## INDIANA MOTOR FITNESS TEST

### Purpose:

e:

- ❖ To measure the leg explosive power and arm shoulder muscular strength.

Age and Sex:

- ❖ Elementary high school boys and girls, college men & women.

Test Item:

S.No	High school level boys & girls	S.No	College level men and women
1	Straddle chins	1	Push ups
2	Vertical jump	2	Straddle chins
3	Push ups	3	Vertical Jump
4	Squat trust	4	Standing broad jump

## I. FLEXED ARM HANG

**Purpose:**

- ❖ To measure arm and shoulder muscular endurance.

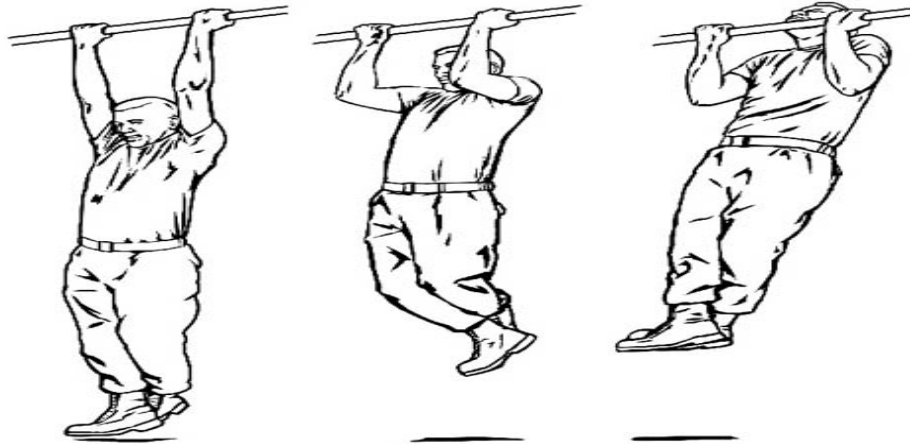
**Age and Sex:**

- ❖ High School Girls.

**Equipment and Material:**

- ❖ Horizontal bar – stop watch.

### Course and Marking:



### Description:

- ❖ Grasp the overhead bar.
- ❖ The grip for the President's Challenge allows using either an overhand grip (palms facing away from body) or underhand grip (palms facing toward body). Position the body with the arms flexed and the chin clearing the bar.
- ❖ The chest should be held close to bar with legs hanging straight.
- ❖ The subjects should be assisted to this position.
- ❖ The subject holds this position for as long as possible.
- ❖ Only one trial is required.

### Scoring:

- ❖ Each perfect completion the subject get one point.

### Rules:

- ❖ Proper stretching exercise
- ❖ The student's chin touches the bar

❖ The student's hand hold backward and the chin above the bar.

❖ The student's chin falls below the level of the bar

#### Safety Precaution:

❖ Warm up.

❖ First Aid Box.

## II. PUSH UPS

### Purpose:

- ❖ To measure the endurance of the arms and shoulder girdle.



### Course and Marking:

#### Description:

- ❖ Start in the push-ups position with the hands and the toes touching the floor.
- ❖ The body and legs are in the straight line, feet slightly apart, the arms at shoulder apart, extend and right angles to the body.
- ❖ Keeping the back and knees straight, the subject lowers the body until there is a 90 degree angle at the elbows' with the upper arm parallel to the floor.
- ❖ A partner holds their hands at the point of 90 degree angle so that the subject being tested goes down only until their shoulder touches the partner's hands, then lock up.
- ❖ The push ups are complete pushups are done in time to a metronome or similar device with one complete pushups every three seconds (1.5 seconds down and 1.5 seconds up, 20 complete pushups per minute).
- ❖ The subject continues until they can do no more in rhythm (has not done the last three in rhythm) or has reached the target number of pushups.

### Scoring:

The score is considering for the correct pushups executed by the subject within 30 seconds. Each push up get each one mark.

### Rules:

- ❖ To proper stretching exercise
- ❖ Elbow extended and Elbow bend.

### Safety Precaution:

- ❖ Proper shoes and dress



- ❖ Suitable warm up
- ❖ First Aid Box

### III. STANDING BROAD JUMP

Purpose:

- ❖ To measure the leg explosive power.

Age and Sex:

- ❖ High school boys, girls.

Equipment and Material:

- ❖ **Tap marking area, Gymnasium hall, Form mat.**

Course and Marking:



**Description:**

- ❖ Ask the students to stand in front of the starting line.
- ❖ Students have to allow swinging the arms from front and back.
- ❖ After the teachers commend student has to jump as much as possible.

Scoring:

- ❖ To measure the foot mark which is nearest to the starting line

Rules:

- ❖ Did not cross restricted line proper wearing shoe.

**Safety Precaution:**

- ❖ Proper dress and shoe.
- ❖ First aid box.

## IV.V VERTICAL JUMP

### Purpose:

- ❖ To measure the leg explosive power.

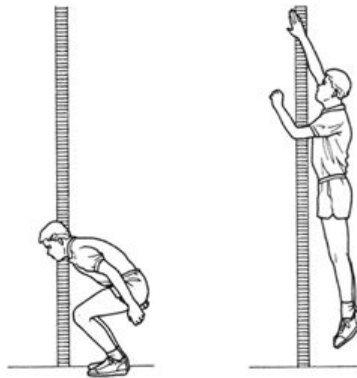
### Age and Sex:

- ❖ High school Boys.

### Equipment and Material:

- ❖ Black board, measuring tape, wall.

### Course and Marking:



### Description:

- ❖ Ask the student to stand near the wall.
- ❖ Ask the student to mark level of his height this is called initial mark.
- ❖ Student has to jump much as possible and mark on the wall it's called final mark.

### Scoring:

- ❖ The maximum reaches will be considered as per the score norms. The minimum reaches also consider to the norms. The best of three attempts is recorded.

### Rules:

- ❖ Students have to jump without any support(wall).
- ❖ Students are not allowed to run and takeoff.

### Safety Precaution:

- ❖ Proper dress and shoes.
- ❖ Suitable warm – up.

#### IV. PULL – UPS

Purpose:

- ❖ To measure the shoulder muscular endurance.

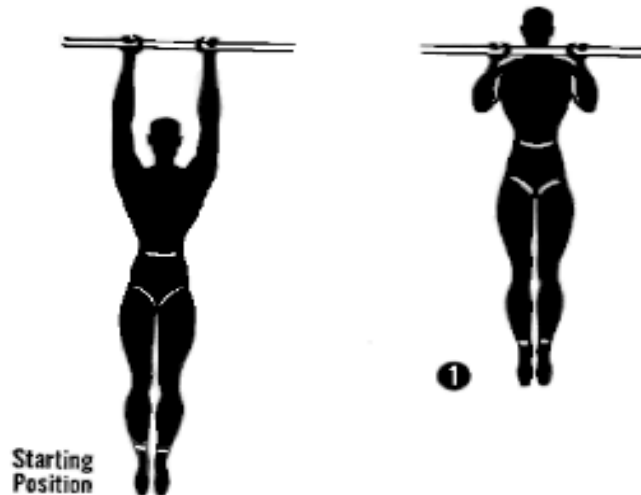
### Age and Sex:

- ❖ High school Boys.

### Equipment and Material:

- ❖ Horizontal bar 1 ½ inch diameter, vertical bars.

### Course and Marking:



### Description:

- ❖ The pull-ups are performed starting from a dead hang (arms fully extended and locked), body motionless, feet off the floor.
- ❖ The grip can be either with both palms facing forward or to the rear, though with both facing in the same direction.
- ❖ From this starting position, a pull-up is performed without excessive body motion, and the body is lifted until the chin has cleared the top of the bar.
- ❖ The body is then lowered until his arms are fully extended or locked out. One complete pull-up is counted when the Marine's arms are locked out.
- ❖ This procedure is repeated until the Marine has reached the maximum 20 complete pull-ups, or can no longer complete a pull-up.

### Scoring:

- ❖ Each point for each complete pull – ups.

### Rules:

- ❖ Elbow extended, chin over the bar with the knees are strength and without body shaking, swinging is not allowed

**Safety Precaution:**

- ❖ To proper dress, shoes, suitable warm up.

## JCR TEST

S.No	TEST ITEM	COMPONENTS
1	J- Jumping	Leg Explosive Power
2	C- Chinning	Shoulder Muscular Endurance
3	R- Running	Agility and Speed

JCR is the three -item test using the vertical jump, chinning and a 100 yards shuttle run in which the subject runs a 10 yard course 10 times

PURPOSE:

This test has been used to find out such basic elements of power as strength, speed, agility and endurance.

LEVEL AND GENDER:

10-17 years High school boys and Girls

FACILITIES AND EQUIPMENTS:

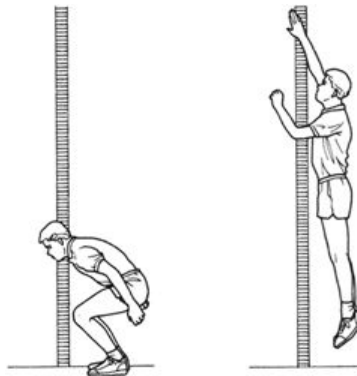
Neat wall with markings, horizontal bar and score sheet.

Test No 1

JUMPING –VERTICAL

JUMP

**COURSE AND MARKINGS:**



**DESCRIPTION:**

The subject stands on a hard level surface with one side to a vertical wall. With both feet flat on the floor he reaches as high as he can touch the wall by the hand. This higher can be marked by the subject with a piece of chalk (initial mark). The subject moves 2 inches away from the wall. In jumping he crouches slightly and swings the arms to aid the jump as high as possible and mark on the wall (Final mark). No extra hop or step is taken before the jump.



The second height is marked with the chalk, and difference between the standing reach and the maximum jumping reach is recorded to the nearest inch. The best jump of three trials is recorded as the score **RULES:**

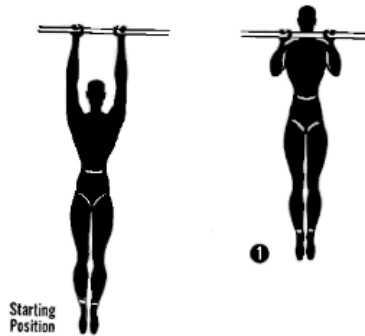
Only three jumps will be given and best among them will be taken for the score.

**SCORING:**

Distance Between the first mark and the second mark is calculated for the vertical jump of the individual.

Test No 2  
CHINNIN  
G

**COURSE AND MARKINGS:**



**DESCRIPTION:**

The student uses the over hand grip(palms forward) with the assistance of two supporters, one in front and one in back ,the pupil raises the body off the floor to a position where the chin is above the bar , the elbow are flexed, and the chest is close to the bar. The students hold this position as far as possible.

**TESTING PERSONNEL:**

A Scorer and time keeper.

**RULES:**

Start the stop watch when the student reaches the hanging position .stop the watch when:

1. The students chin touches the bar
2. The student head tilts backward to keep the chin above the bar, or
3. The students chin falls below the level of the bar

**SCORING:**

The score is the no of seconds measured to the nearest seconds that the student maintained the handling position

**PURPOSE:**

**T**  
**e**  
**s**

**t No 3**  
**SHUTTLE RUN**

To measure the Agility or speed and change of direction  
LEVEL AND GENDER:

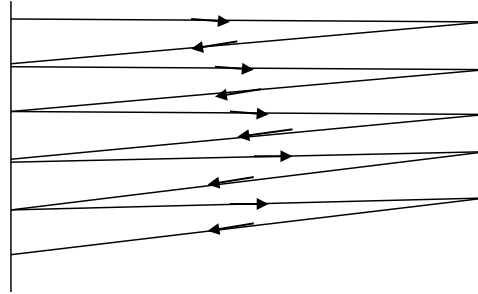
10-17 years High school boys and Girls

FACILITIES AND EQUIPMENTS:

Chunnam for Marking , Measuring tape, stop watch, wooden blocks-2nos ( 2 x4 inches)

COURSE AND MARKINGS:

10 yard



DESCRIPTION:

Two parallel lines are marked on the floor 10 yard apart. The student's starts from behind the first line, tests consists of running to the second line and cross it then come back to stating line, this is continuous ten times. Wooden blocks may use for turning effectively.

TESTING PERSONNEL:

A timer and scorer

RULES:

Must cross the lines and come back.

SCORING:

The score is the elapsed time accurate to the nearest 1/10 of the second. Each student is allowed to trails and the best score is selected. Students who fall or slips significantly should be given another trail.

**UNIT IV**  
**SPORTS SKILL TEST**

**BADMINTON SKILL TESTS**

**1. LOCKHART – McPHERSON BADMINTON TEST**

**Purpose**

To test the badminton playing ability of college women

**Equipment required**

Badminton racket, shuttlecock, wall space 10' height, 10' length, stopwatch, score sheet; 1 inch net line, chalk- piece, chunnam, measuring tape,.

**Testing Personal**

A Scorer, A timer.

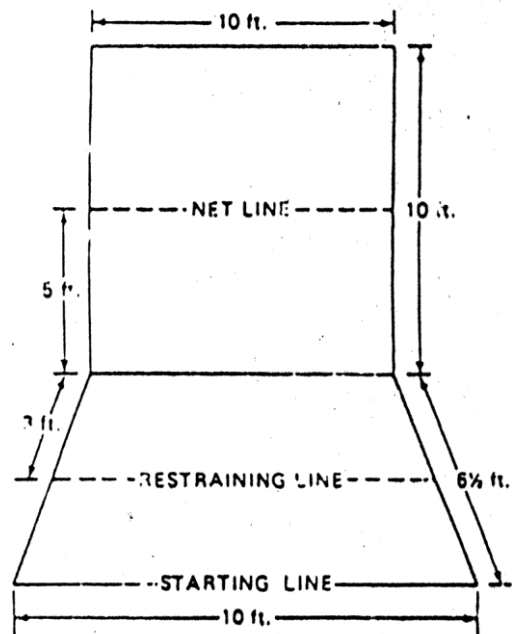
**Test Administration**

The subject stands behind the starting line with a Badminton racket in one hand and a shuttle cock in the other, on the signal to start. She serves the shuttle cock against the wall above the net line. The shuttlecock is volleyed against the wall as many times as possible in 30 Seconds. Three trials are given to each player.

Only hits which plays shuttle cocks on or above the net line are considered good, one point is counted for each good hit. After the shuttlecock has been served the player may move upto the restraining line, if she wishes.

If the restraining

line is been crossed the hit is not counted but the shuttle cock is in still play. If the shuttle cock is missed the player must retrieve it and continue by putting it back in play with a serve from behind the starting line.



Lockhard - McPherson Badminton Test

**Scoring**

The score is the no of legal hits made on or above the net line the three trials

S.No	Trials	Total

	<b>1</b>	<b>2</b>	<b>3</b>	

## 2. MILLER WALL VOLLEY TEST

Purpose: To measure ability to use to clear shot in badminton.

Level & gender: College man and women for secondary school students.

### Equipments:

Wall a inch line is extended across to wall 7 ½ feet from the floor and parallel to it feet from the floor and parallel to it the width of the wall space should be test 10 feet and the height preferably 15 feet or highest.

### Description:

On the signal ready 'go' the subject against the wall from behind the 10 meter against the wall from behind the 10 feet floor line the serve puts the shuttle cock in a position to be valued with a clear on each rebound If the serve hits on or above the 7 ½ feet wall line that not counts as on point and each following rebound not made on or above the 7 ½ feet wall line when the subject is behind the 10 feet floor line counts as one point the helps is not counted if any part of the feet goes over the 10 feet restarting line.

### Scoring:

The bats is not counted if the shuttle cock goes below 7 ½ feet well line. How ever fighter in the case of the foot going the restarting line or the shuttle cock goes below his well line. The subject is permitted to keep the shuttle cock in play the subject may step in front of the training line to keep shuttle cock in play but hits failing to follow the specification do not count but shuttle cock may be stopped out only time and restart with a legal service from behind, the 10 feet floor line, if the shuttle cocks is missed or fall, to the floor the subject picks up the same shuttle cock as quickly a possible get behind the retarding line, and put the shuttle cock play with a legal services.

An accumulate number of hats made with in 30 seconds is the score for each individual trial tree 30 second trials are given the score consists if the sum of three trials.

## 3. FRENCH SHORT SERVICE TEST FOR BADMINTON

### PURPOSE :

To measure ability to serve accurately and low

### LEVEL AND SEX:

May be used for boys and girls who have developed a degree of skill in the short serve.

### TIME ALLOTMENT AND NO OF SUBJECT:

The test is time consuming unless areas can be marked and prepared for taking the test off to the side of the regulation courts. If several courts can be marked the test goes faster. both the right and left courts on the same side of the net can be marked. Two take the test at the same time one to the right court and one to the left.

FACILITIESANDEQUIPMENTS:

Badminton court, rope, shuttlecocks, racket and floor markings. The circular lines are 1 ½ inches wide and width of them is included in the amount of each radius. The use of different colours for the circles makes scoring more accurate.



**PROCEDURE:**

The player stands in the regulation right court for serving and serves 20 times into the opposite right service court for the doubles game. The shuttle cock must go under the rope placed 20 inches above the net and parallel to it and must otherwise be a legal serve. The serves should be taken in groups of at least five and prefer 10 if there is a sufficient no of shuttle cocks.

**TESTING PERSONNELS:**

A scorer who stands on the target side of the net out of the way on the flight of the shuttle cock.

**INSTRUCTIONS:**

Stand in the service court wherever you would like. Serve low and short to the opposite right service court for the doubles game and try to place the shuttle cock in the areas counting the most values. The serve must go under the rope and must be a legal serve. You will have 20 trails and your score is the total score for the 20 serves.

**SCORING:**

Score each serve by the numerical value of the area in which it first lands shuttle cocks that land on a line will score the higher value. Serves that fail to go between the rope and the net that are out of the bounce of the right service court for doubles, and that are not executed legally will score zero. The final score is the total of the values made on 20 serves.

**BASKETBALL SKILL TEST**

**JOHNSON BASKETBALL ABILITY TEST**

<b>S.NO</b>	<b>TEST ITEMS</b>	<b>COMPONENTS</b>
1	Field- Goal Speed Test	Shooting Accuracy
2	Throw for Accuracy	Passing Accuracy
3	Dribble Test	Dribbling Ability

**Purpose**

To measure the basketball ability, potential basketball ability.

Level and gender

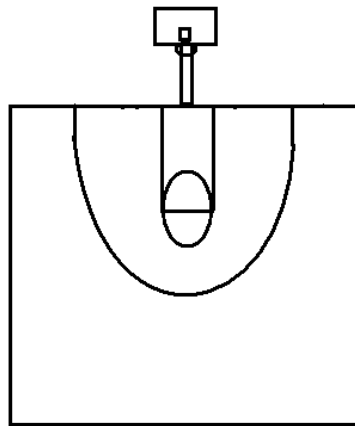
Boys and girls, men and women.

Equipment

Basketball, Basketball board, Chalk, Measuring tap, Chunnam, Hurdles, Whistle and Stop watch.

**TEST NO 1:**  
**FIELD – GOAL SPEED TEST**

Marking:



**Description**

The subject assumes any position that the desired under the basket. At the signal “GO” he begins to make “layup shots” as rapidly as possible for a period of 30 sec. Score one for each basket.

Scoring:

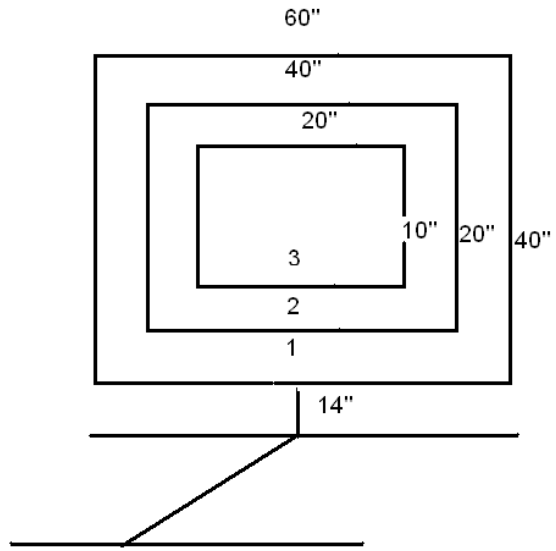
- ❖ One point is scored for every basket made.

Rules:

- ❖ Each subject allow to made basket 30 seconds.
- ❖ If the ball is missed the student should respond able for the ball and continue

TEST NO 2  
THROW FOR  
ACCURACY

**Marking**



### Description

The target as shown in picture is a series of rectangles of various sizes, arranged one inside of the other. The target is either marked or hung on the wall with length of the rectangle in a horizontal position (60 x 40 inches : 40 x 25 inches and 20 x 10 inches), the bottom 14 inches from the floor. The subject has ten trials, from a distance of 40 feet, using either the basketball or the hook pass. The score is total point of make in the 10 trails as follows. 3 points for the inner rectangle: 2 points for the middle and 1 point for the outer rectangle.

Rules:

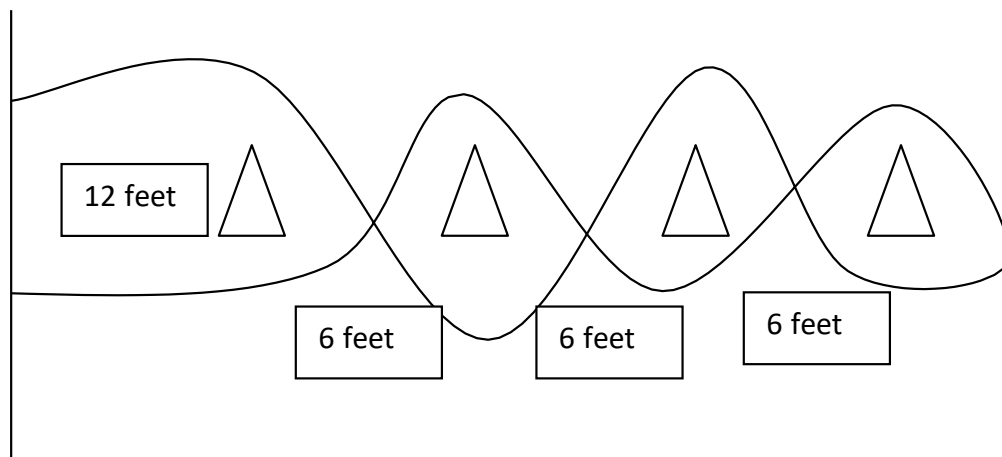
- ❖ The subject stands behind the restraining line a throw the ball to the target.
- ❖ Each subject has 10 trails.

Scoring:

- ❖ Score 3 points for every ball hitting the center of the rectangle or on the inner line.
- ❖ Score 2 points for balls landing the middle rectangle and line.
- ❖ Score 1 point for balls landing the outer rectangle or on the line.
- ❖ A total of 30 points is possible.

### TEST NO 3 DRIBBLE TEST

Marking



### Description

Four hurdles are placed in a line 6 feet apart, with distance of 12 feet from the starting line to

the first hurdle. The subject starts from one end of the starting line (which is 6 feet long), dribbles around the hurdles and back to the other end of the starting line.

#### Scoring

Total number of zones passed in 30 seconds as shown in picture. Best of three trails is recorded.

## SOCCER TEST

### McDONALD SOCCER TEST

#### PURPOSE:

To measure the general soccer ability.

#### LEVEL AND GENDER:

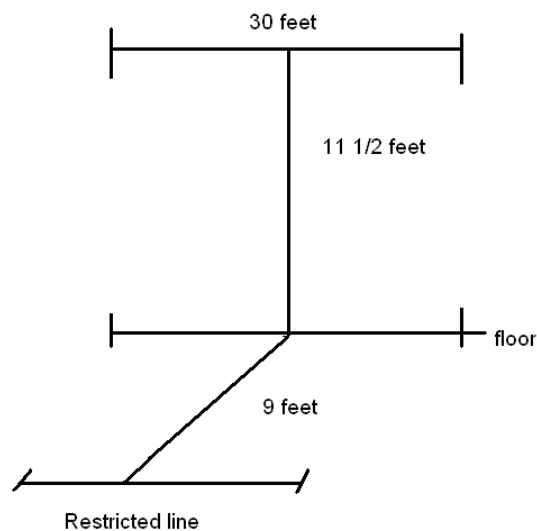
College men

#### EQUIPMENT:

Football, stop watch, 30 feet long back board or wall

#### MARKING:

The lines are marked with 30 feet length and 11 ½ feet height on the wall attached to the floor. A restraining line is drawn a feet from the base of wall. A starting line is also drawn 9 feet away from restraining line.



#### PROCEDURE:

3 soccer balls are used one is placed on the restraining line and other 2 balls are placed on the center of the starting line. The test consists of kicking the soccer ball against the wall as many times as possible in 30 sec duration. Any type kicks may be used, both ground balls and fly balls that hit

the backboard count. To count, however, all balls must be kicked from the ground with supporting leg behind the retrieved in any manner, including use of hands. If a ball is out of control, the subject may play one of the spare balls, but must bring the ball by use of hands or feet to a position at the restraining line before kicking against the backboard.

RULES:

The ball should rebounded take the kick only inside the starting line area.

SCORING:

A number of fair kick with 30 sec duration is called individual score 3 trails are permitted and the highest total of 3 trails constructed by the individual score.

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UNIT - V  
SPORTS SKILL TEST

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**VOLLEYING TEST**

**RUSSELL - LANGE VOLLEYBALL TEST**

Sl.no	Test Item	Components
1	Repeated volley test	Volleying ability
2	Serving test	Serving ability

Aim:

To measure over all playing ability in volleyball.

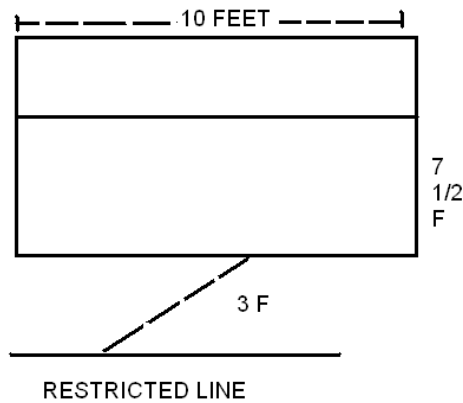
**Level & Gender**

Girls in grades 7, 8 and 9.

**EQUIPMENT**

Volleyball, a neat wall without abstraction never leveled floor, stop watch, chunnam for marking, pencil for scoring sheet , etc.

**MARKING**



**PROCEDURE:**

A line 10 feet long is marked on the wall at net height of 7 1/2 feet above the floor. A line on the floor 10 feet long and 3 feet from the wall. The subject starts the volley from behind the 3 feet line, with an underhand movement tosses the ball to the wall, and then volley the repeatedly against the wall above the net line for thirty seconds. The ball may be set up as many times as desired or



necessary; it may be caught and restarted with toss as at the beginning. If the ball goes out of control, it must be retrieved by the subject and put into play at the 3 foot line as at the beginning. The score consists of number of times the ball is clearly batted from behind the 3 foot line to the wall above or on the net line.

SCORING:

3 trials should be given the legal hits are counted above the net line in front of the restraining line within 30 sec duration. The highest trial is taken as individual score.

## **SERVING TEST**

AIM:

To measure over all playing ability in consider “RUSSEL LANGE ” servicing test.

EQUIPMENT:

A neat and parallel volleyball court with net, stop watch ,chunnam for marking, pencil for scoring sheet, etc..

### **PROCEDURE:**

The subject serves ten times in a legal manner into a target on the court across the net. Let serves are repeated. Special marking as shown in the picture, chalk line across court 5 feet inside and parallel to end line, chalk line across court parallel to and 12<sup>1/2</sup> feet from the line under the net. Chalk lines 5 feet inside the parallel to each sideline, extending from line under the net to line. Each service is scored according to the value of the target area in which the ball lands. A ball landing on a line separating two areas is given the higher value. A ball landing on a side or the end line scores the value of the area adjacent.

RULES

Foot fault is not allowed.

If the ball goes out of the court, 0 point will be given. No re changes.

SCORING:

10 trails should be given each corner right / left 10 trails counted a point added individual score.



## BRADY VOLLEY BALL TEST

### **Purpose:**

To measure the volley ball playing ability of college men for the purpose of classification improvement of teaching measurement of improvement of skill and for grading.

**Level & gender :** College men

Equipment and materials:

*The equipment needed* included as stopwatch, volleyball and a wall with the following marking a horizontal chalk line 5 feet long and 11 ½ feet from floor vertical lines toward the calling.

### **Description:**

The subject stands with the ball near the well send on the signal to begin throws the ball against the wall he plays the rebound with a legal volleyball net and attempt to volley if against the wall with in the boundaries of the chalk lines as many times as possible only legal volleys counts. If the losses control of the ball or catches if he starts it given with a throw as at the beginning of the test.

### **Scoring:**

The number of successful volleys that hit with in the forget area in 60 seconds constitutes the scores.

The thrown balls do not count.

## HOCKEY SKILL TEST

### **HENRY FRIEDEL FIELD HOCKY TEST**

### **Purpose**

To measure the ball control and man cover ability of the player to adjust to a moving ball.

### **Level & gender**

Resigned for high school girls

### **Equipment**

Hockey stick, ball. A field space 30 by 15 yards is needed for each testing station.

### **Description:**

The player stand behind the starting line and an the signal runs, forward to control a ball which has been rolled in either from the right or left corner run toward the forget are to receive the ball which will be shelled into you from the left side. Have it in control dribbling as you bass the destructive on the way to the end line time each trial from he 90 signal until the ball crosses the starting line on he return trip total the number of seconds for all 20 trials trained assistants to role in the ball. Speed and accuracy of the roll in should be featly christens for every trial and every student as this will influence the performance of the students taking the test.

## SAI HOCKEY SKILL TESTING FOR TALENT SPOTTING AT YOUNG

Age : The three items of the hockey skill test are :

- Shooting in the target(goal)
- Balancing the ball on the stick
- Moving with the ball

(i) **Shooting in the Target** : This test item is aimed at measuring the ball shooting ability of the hockey player.

**Equipment:** Hockey sticks, Hockey cork balls, two flag posts, measuring tapes and marking powder

**Test/ Target Dimension:** A Target is formed by pegging two flag posts (each two metres high) at a distance of one metre from each other. A restraining line at a distance of ten metres from the target is marked on the ground. Ten balls are placed near the shooting spot on the restraining line. The subject is asked to hit all the ten balls into the target one by one.

#### SAI NORMS TABLE

Age group (years)	Shooting Target (accurate hits)		Balancing Ball (Seconds)		Moving With ball (Seconds)		Points
	Boys	Girls	Boys	Girls	Boys	Girls	
10	6	5	15 & more	10 & more	4.70 & less	5.99 & less	3
	5	4	10 - 14	06 - 09	4.71 - 5.99	6.01 - 6.79	2
	4	3	06 - 09	03 - 05	6.00 - 7.30	6.80 - 8.09	1
11	7	6	20 & more	15 & more	4.55 & less	5.34 & less	3
	6	5	15 - 19	10 - 14	4.56 - 5.89	5.35 - 6.64	2
	5	4	06 - 14	05 - 09	5.90 - 7.15	6.65 - 7.99	1
12	8	6	25 & more	20 & more	4.40 & less	5.19 & less	3
	7	5	30 - 24	15 - 19	4.41 - 5.69	5.20 - 6.49	2
	6	4	15 - 19	10 - 14	5.70 - 7.00	6.50 - 7.79	1
13	9	8	Same as for age group 12		4.30 & less	5.10 & less	3
	8	7			4.31 - 4.39	5.11 - 5.19	2
	7	6			4.40 - 5.00	5.20 - 5.30	1

14	11	10	Same as for age group 12	4.20& less	5.00& less	3
	10			4.21–4.29	5.01–5.10	2
	9			4.30–4.37	5.11–5.19	1

**Scoring and Evaluation :** The number of accurate hits is evaluated with the help of S.A.I prescribed standards enlisted in Table given below

(ii)**Balancing The Ball on The Stick** : This test is aimed to measure the balancing ability of the Hockey players.

**Equipment:** Hockey stick and corkballs

**Test Procedure :** The subjects is asked to balance the ball on the blade of the hockey stick continuously for the maximum duration possible .Up to the 11 years age group, the subject is allowed to place the ball on the stick with hand . While in case of the subject of 12 years and above , the ball is to be lifted from the ground by the subject with the help of hockey stick and continue balancing

The subject may move around, if need be to maintain the balance for the longest duration. The moment the ball is placed on the stick or lifted from the ground and brought under control on the stick, a stopwatch is started and the moment the ball falls down from the stick the stopwatch is stopped and the time is recorded accurate only upto seconds. Two trials may be given.

**Scoring and evaluation:** Out of the two trials, the better one, longer duration is converted to points with the help of SAI prescribed standards enlisted in Table.

(iii)**Moving With The Ball:** This test item is aimed to measure the ball controlling ability of the hockey player when moving with the ball.

**Equipment:** A stopwatch, hockey stick, cork balls, tape and marking powder.

**Test Dimension:** Two horizontal lines, once called starting line end the line, are marked at a distance of 20 metres.

**Test Administration:** The subject must stand behind the starting line by holding the hockey stick in both the hands , the hockey ball must be placed on the start line . On the signal Ready, Go the subject must start moving forward by rolling the ball with the stick without breaking the contact of the blade of the stick on the ball and try to cross the finish line with the ball as early as possible. The forward movement of the ball with the blade of the stick should be rolling movement. A stopwatch is started simultaneously to the signal 'go' and is stopped as soon as the ball and the subject cross the finish line .Each subject is given two trials and better of the two is considered for evaluation.

**Evaluation:** The minimum time taken to reach the end line with the ball is evaluated with the of SAI prescribed standards which are enlisted in Table.



TENNIS SKILL TEST

DYER TENNIS TEST

Joanna T .Dyer was proposed to measure the playing ability in tennis for college women.

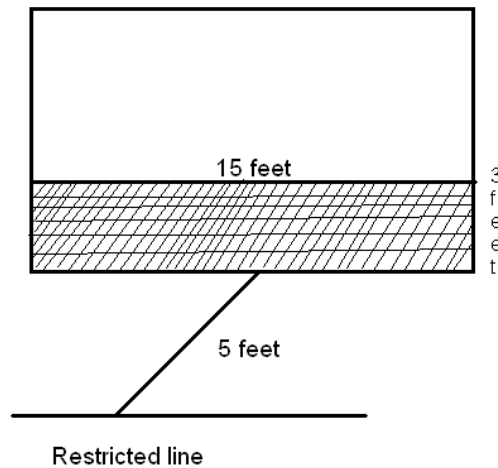
AIM :

To classify college women students according to playing ability in tennis.

EQUIPMENTS:

Tennis ball with racket need leveled wall without any abstractions, tape, chunnam for marking, stop watch, pencil scoring sheet etc...

MARKINGS:



The backboard 10 feet height, 15 feet width line drawn above 3 feet from the line is called net line the net line both ends should be extended up to 3 to 7 feet ceiling. The net line is drawn 3 inch it should be visible. The restraining line drew 5 feet from the base of the floor.

PROCEDURE:

Two balls and a racquet are provided for each subject taking the test at one time. A box containing extra balls, about 12 inches long, 9 inches wide and 3 inches deep is provided and placed on the floor at the junction of the restraining line and the left side line for right handed players, and at the right for left handed players.

In starting the test, the subject drops the ball and lets it hit the floor once, then plays it against the wall as rapidly as possible for 30 seconds. There is no limit to the number of times the ball may bounce before it is hit. Also, with the exception of the start and when a new ball is put into play, the ball need not touch the floor before being played. Any stroke or combination of the strokes may be used, but all balls must be played from behind the restraining balls, but any hits made while in such a position do not count. Any number of balls may be used. If the subject loses control of the ball, the second that was supplied may be used after which, if necessary, other balls may be taken from the box.

For efficient administration of the test, divide the group into units of 4 players each, numbered 1- 4.

- 1- Takes the test
- 2- Counts the number of balls that strike the wall on or above the net line.
- 3- Checks the number of violations at the restraining line.

4- Collects and return all balls to the box.

RULES:

While the ball goes out of control he has call other ball, bounce and volley the ball above the net line within 30 sec duration.

SCORING:

Each ball striking the wall on or above the net line within the duration of 30 sec. legal hits counts 1 points each (for men 20 feet restraining line and starting each volley with a serve).