Building standards of simulation reference for some physical abilities as an indicator for choosing specialized handball talented school-players between 12 and 14 years in Iraq<br>${ }^{1}$ Bashar Ghaleb Shihab Al Bayati; ${ }^{2}$ Maha Hasan Mosleh Al-Azzawi;<br>${ }^{3}$ Saifuldin Watheq Fouad Al-Zuhairi


#### Abstract

The importance of the current research in setting up a correct scientific mechanism for selecting handball players based on testing and measuring objectively instead of subjectivity in selection, by finding standard spoken reference and based on scientific foundations that help coaches get players those with a high level of physical performance thus achieving the best results. It has been concluded that the researcher standards of reference tests Research (speed transition, explosive power, flexibility), and that the test results were acceptable for the age of the research sample tests research, and recommend a researcher using this by trainers specialized schools for the gifted in the selection of handball players Reconstruction (12-14) years old in Iraq, and conducting similar studies in variables that were not addressed in the study and on other age groups.


Keywords: Standards, spoken, abilities, physical

## Introduction

Developed countries seek to prepare their athletes to reach the best achievements through careful selection of these athletes, which is based on a scientific and accurate selection process, which must be subject to scientific mathematical standards through the capabilities of these athletes and knowledge of their physical capabilities to help coaches choose the appropriate players for their effectiveness in order to reach the best Sports achievements, and that access to higher levels and achieve the great achievements are no longer dependent only on the process of training, but on the process of selection, which provides greater opportunities for players qualified yen to achieve optimal athletic achievement, and the choice of players do not take revenge $t$ Only on personal experience, superficial observation and coincidence, but it needs to

[^0]follow the sound scientific methods and rely on testing and measurement to achieve the required levels while saving time and effort. (Yaqoub , 2009), and physical abilities are one of the most important requirements of handball players, so workers in this field must choose players according to specific spoken reference standards that qualify them to achieve skillful and physical performance in accordance with the aspiration sought by workers in the sports field. (Hassanein, 1979), hence the importance of the current research in setting up a correct scientific mechanism for selecting handball players based on testing and measuring objectively instead of subjectivity in selection, by finding standard spoken reference and based on scientific foundations that help coaches get players Those with a high level of physical performance thus achieving the best results. (Camash, 2002 ), through the researcher's experience as a player and former referee in Diyala club for several previous years, as well as by conducting personal interviews with a number of specialized school coaches, it became clear that the selection process for these games needs to find physical determinants based on the sound scientific method for choosing Players, and in the desire of the researcher to contribute to solving this problem, he decided to find scientific formulas for adopting the levels of spoken reference for some physical abilities as an indicator for choosing players who have high physical aptitudes and are qualified to achieve high achievements with the least effort, money and time, as for the objectives of the research is to identify the level of some abilities Physicality as an indicator for choosing the players of specialized schools for sports giftedness in ages (12-14) years in Iraq, and finding spoken levels of the reference as an indicator for choosing the players of specialized schools at ages (12-14) years in Iraq. The areas of research have included the human field on the players specialized schools reel for ages (12-14 years) in Iraq for the year 2018/20 19, either area Temporal for the period from 20/10/2018 until 15/3/2019 The field of spatial the sports hall For specialized schools in Iraq.

## Methodology

Research Methodology: The researcher used the descriptive manner the study survey and studies the standard of the relevance of the research problem and objectives "because the descriptive approach of the best curriculum and the easiest to get to achieve the goals of the research, Valmsh provides the researcher with information to enable analysis and interpretation and decision - making, and T. revealed to him about relationships between variables Thoughtful ". (Jacob, 2009)
Research sample: represent a community search my players specialized reel schools hand in Iraq, totaling ( 310 ) player, and after the exclusion of the guards of the goal and the exclusion of players who did not appear in the lottery, chose the researcher sample random way (the Lottery) through the selection of (31) players from each specialized school, whose number is (5) specialized schools in Iraq, which amounted to ( 155 ) players, with a percentage of ( $50 \%$ ) from the research community, and as shown in Table No. (1).

Table (1) shows the distribution of the research sample selection

| T | The name of the <br> specialized <br> school | Total number of <br> players | Number of <br> sample selected | The percentage in <br> relation to the sample |
| :--- | :--- | :--- | :--- | :--- |
| 1 | Baghdad | 82 | 31 | $37.80 \%$ |
| 2 | Diyala | 57 | 31 | $54.39 \%$ |
| 3 | Diwaniyah | 44 | 31 | $70.45 \%$ |
| 4 | Basra | 67 | 31 | $46.27 \%$ |
| 5 | Mosul | 60 | 31 | $51.67 \%$ |
| total <br> summation | 310 | 155 | $100 \%$ |  |

Tools, hardware and tools used: References Arab and foreign sources, tests and measurement, and questionnaire data. Electronic stopwatch, tape measure, whistle, medicine balls, wooden box, chair.

## Literature review

## 1. Determine the most important physical abilities

After informed the researcher on many sources and references, scientific research and interviews with experts and specialists in the field of test and measurement, and the people of competence, have been prepared in a form questionnaire to the most important physical abilities which the need for handball players aged (12-14 years), were presented here on the gentlemen experts of They consisted of ( 7 ) experts to survey their opinions to determine the most important physical abilities.

Table (2) the relative importance of the research variables, according to expert opinion

| $\mathbf{T}$ | Physical abilities | Total marks | Relative importance | Selected capabilities |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{1}$ | Explosive force | 35 | $\mathbf{1 0 0 \%}$ | $\sqrt{ }$ |
| $\mathbf{2}$ | Fast power | 17 | $\mathbf{4 8 . 5 7 \%}$ | $\mathbf{X}$ |
| $\mathbf{3}$ | Transition speed | 34 | $97.14 \%$ | $\sqrt{2}$ |
| $\mathbf{4}$ | Withstand speed | 20 | $57.14 \%$ | X |
| $\mathbf{5}$ | Responsiveness | 15 th | $\% 42.86$ | X |
| $\mathbf{6}$ | Flexibility | 30 | $85.71 \%$ | $\sqrt{ }$ |

The physical abilities that scored less than $60 \%$ was excluded, and thus the potential application capabilities were stabilized as follows in order of importance: 1. Explosive power. 2. The transition speed. 3. Flexibility.

## 2. Determine physical exams

The researcher presented a questionnaire for the experts to determine the appropriate tests for measuring physical abilities, Annex (3). Four tests were nominated to measure physical abilities by the experts.

Table (3) shows the relative importance of physical exams

| T | Physical abilities | Candidate tests | Total marks | Relative importance | Selected tests |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Explosive <br> force | Sargent vertical jump test | 10 | 28.57\% | X |
|  |  | Throwing test of weight ( 900 g ) from shoulder level | 30 | 85.71\% | $\checkmark$ |
|  |  | Test of three long strokes. | 35 | 100\% | $\checkmark$ |
| 2 | Transition speed | Sprint ( 30 m ) from the high start | 35 | 100\% | $\sqrt{ }$ |
|  |  | Ran ( 40 m ) | 15th | 42.86\% | X |
|  |  | Run ( 50 m ) | 11 | 37.14 | X |
| 3 | Flexibility | Bend the torso forward from standing | 35 | 100\% | $\checkmark$ |
|  |  | Measurement of the posterior muscle of the spine | 10 | 28.57\% | X |
|  |  | Torso bending forward from a long sitting position | 14 | 40\% | X |

## 3. Exploratory experience

The researcher conducted a trial exploratory of the day Saturday, corresponding to $10 / 11 / 2018$ promptly at the tenth morning and the team junior Diyala club handball totaling (50) Player yen, and was the target of the exploratory experiment is : to identify the suitability tests For the research sample. Ensuring the validity and readiness of the tools used in carrying out the tests. Knowing the time spent for each test as well as the overall tests. We ensure the preparation and competency of the assisting work team and extract the scientific foundations for the tests.

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## 4. The scientific basis for the tests

First: The validity of the test: Validity is "the accuracy with which the test measures the purpose for which this test was developed" (Lazem, 2000). The researcher presented the contents of the tests to a group of experts and thus the researcher obtained the validity of the content.

Second: Stability of the test: In order to extract the second scientific factor for the physical and skill tests, the principle of the static test must be applied, which is a test that gives close results or the same results if applied more than once in similar circumstances (Al-Zyoud, 2005). The coefficient of stability (test and retest method) and an interval between the first and second test (5) days, and the researcher extracted the reliability coefficient through the simple correlation coefficient (Pearson) between the results of the first test and the second test and extracted the significance of the correlation, and the researcher concluded that all the stability parameters The tests enjoy a high degree of stability, as shown in Table (8).
Third: know objectivity as " the extent of liberation of the arbitrator or examiner of the subjective factors" (Farhat 2001 ) and the test objective is to test non - taxable self-assessments, in order to extract the substantive values must use an objective test that sees (Bahi , 1995) " not a difference assessors in judgment on something or on a particular topic, and for the purpose of ascertaining the objectivity candidate tests to measure physical abilities " , deliberately researcher to the use of arbitrators who are (3) arbitrators when conducting exploratory experiment and then extract the simple correlation (Pearson coefficients) between the scores of arbitrators showing Objectivity of the tests, as indicated in Table (4)

Table (4) clarifies the coefficient of stability and objectivity coefficient for physical and skill tests

| T | the exams | Degree of <br> measurement | Stability <br> coefficient | mistake <br> percentage | Objectivity <br> factor | mistake <br> percentage |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | Running test <br> (30m) from high <br> start | Sec. | 0.85 | 0.001 | 0.92 | 0.000 |
| 2 | Throwing test of <br> weight (900 g) <br> from shoulder <br> level | $\mathbf{M}$ | 0.82 | 0.000 | 0.94 | 0.000 |
| 3 | Test of three <br> long strokes. | $\mathbf{M}$ | 0.83 | 0.000 | 0.95 | 0.000 |
| 4 | Bend the torso <br> forward from <br> standing | $\mathbf{c m}$ | 0.85 | 0.000 | 0.90 | 0.000 |

Conduct tests: were conducted tests on the sample for a period of 20/11/ 2018 until 15/1/2019, was managing the tests by the team researcher according to a mechanism for not lead to stress testers, and it's the application of tests in the form of a sequential move where The laboratory is streamlined, giving breaks between stations and between tests. Statistical methods: The researcher used the Statistical Bag for Social Sciences (SPSS).

## Results

## 1. Defining spoken criteria for the search tests

After conducting tests on the sample, we were taken raw scores for the tests of (4) tests, known as the "get raw scores of things affordable for the measure, but the degree of difficulty lies in the interpretation
of these degrees make sense and give it a sign" (Hassanein, 1979) and to make Description of the results of the research sample in the tests and measurements used in an integrated way. It was necessary to use other measures that give accuracy to the results. Therefore, the researcher used measures of central tendency and dispersion, as shown in Table (5).
Table (5) shows the mean, standard deviation, highest and lowest value of the investigated variables

| T | the exams | measuring <br> unit | Arithmetic <br> mean | standard <br> deviation | Coefficient <br> of torsion | highest <br> value | less <br> value |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | Running fran test <br> (30m) from high <br> start | sec | 5.690 | 00.358 | 0.351 | 6.60 |  |
|  | Throwing test of <br> weight (900 g) <br> from shoulder <br> level | M | 3.751 | 00.707 | 0.418 | 5.90 |  |
| 3 | Test of three long <br> strokes. | M | 4.574 | 0.474 | 0.216 | 5.90 | 3.50 |
| 4 | Bend the torso <br> forward <br> standing | cm | 7.281 | 4.107 | 0.391 | 17 | 1.00 |

There are several ways to calculate the Norm-referenced tests of reference such as transferring crude grades to degrees as well as a way to get away from the middle and other statistical operations, but the sister R researcher how long to find an oral standards of reference as shown in the following steps: find the difference between the highest and lowest value for the test. The difference is divided by the number of levels that the researcher uses in order to obtain the length of the category, and since the researcher used four levels (excellent - good - acceptable - poor), the difference was divided into four.
2. Determine and analyze spoken reference standards for the speed of the transition

Table (6)shows the distribution of standard scores, levels, frequencies, percentage, and the reference criterion for the transition velocity test


Table shows (6) Test transition speed results, we note that the level of the excellent obtained ratio (14.20\%) while the level backhaul d got the ratio of ( $46.45 \%$ ), while the acceptable level obtained ratio ( $26.45 \%$ ), while the weak level, get a percentage $(12.90 \%)$, and it reached the values of the test reference for the transition speed (5.750).
3. Defining spoken reference standards for the explosive force of the arms and analyzing them

Table（7）shows the distribution of standard scores，levels，frequencies，percentage，and the benchmark for the explosive force test of the arms

| variable | 禺 |  |  | 気苞 |  | 或 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| highest value 5.7 | a second | 5．7－4．82 | Excellent | 15 | 9．68\％ | 3.07 |
|  |  | 4．81－3．95 | good | 40 | 25．80\％ |  |
| less value |  | 3．94－3．07 | Acceptable | 85 | 54．84\％ |  |
|  |  | 3．06－2．2 | Weak | 15 | 9．68\％ |  |
| Total |  |  |  | 155 | 100\％ |  |

The table shows（ 7 ）test results of explosive power of arms，and note that the level of the excellent obtained ratio（ $9.68 \%$ ）while the level backhaul d got the ratio of $(25.80 \%$ ），while the acceptable level obtained ratio（ $54.84 \%$ ）the weak level，get a percentage（ $9.68 \%$ ），and reached the values of the reference test for the strength of the explosive armrests（ 3.07 ）．

4．Determine and analyze spoken reference standards for the explosive force of the two men
Table（8）shows the distribution of standard scores，levels，frequencies，percentage，and the reference criterion for testing the explosive force of the two men


5．The table shows（ 8 ）test results of explosive power of the two men，and note that the level of the excellent obtained ratio（ $7.74 \%$ ）while the level backhaul d got the ratio of（ $41.29 \%$ ），while the acceptable level obtained ratio（ $38.07 \%$ ）the weak level，get a percentage（ $12.90 \%$ ），and the values reached its reference test for the strength of the explosive of the two men（4．1）．
6．Definition and analysis of benchmark criteria for flexibility
Table（9）shows the distribution of standard scores，levels，frequencies，percentage，and the benchmark for the flexibility test



The table shows (9) test results flexibility, and note that the level of the excellent obtained ratio ( $21.29 \%$ ), while the level backhaul d got the ratio of ( $33.55 \%$ ), while the acceptable level obtained ratio ( $30.32 \%$ ) The level weak, get a percentage ( $14.84 \%$ ), and the values reached its reference test for flexibility (5).
Table (10) Spoken criteria shows the final reference for research tests

| T | Name of the test | measuring unit | The reference criterion |
| :--- | :--- | :--- | :--- |
| $\mathbf{1}$ | Running test $\mathbf{( \mathbf { 3 0 m } )}$ from high start | sec | 5.75 |
| $\mathbf{2}$ | Throwing test of weight $(\mathbf{9 0 0} \mathbf{g})$ from shoulder level | $\mathbf{M}$ | 3.07 |
| $\mathbf{3}$ | Test of three long strokes. | $\mathbf{M}$ | 4.1 |
| $\mathbf{4}$ | Bend the torso forward from standing | $\mathbf{c m}$ | 5 |

6. Norm-referenced testsare the ultimate reference for physical tests

In light of the above, the researcher has reached the standard spoken reference for the research tests through the results of the tests, and Table (10) shows that

The researcher believes Norm-referenced testsreference reached by representing the results acceptable of which enables testers to pass tests successfully to the fact that the percentage ( $85 \%$ ) of the sample have exceeded Norm-referenced testsreference for research variables and thus achieve the goal of research and is building an oral standards of reference for some of the physical abilities of football players Al-Hand Baaar (12-14) years old in Iraq. According to (law of 2008 ) that " the criteria spoken reference represents the limit minimum acceptable performance, which enables testers to pass tests successfully for the purpose of future use, and the issuance of the calendar decisions in the process of first choice", and consistent researcher with (Dosari, 2004) "What you need in fact serious compared to the calendar within a more accurate and more measured analysis by focusing on the method spoken encouraged that focuses on what he knows the player and can effective without his comparison with other of the players and cannot do it, through a qualitative description or highlight level Or the degree or estimate that does not measure the training process only, but goes beyond that to providing the training process with detailed information about the player's levels of development, his performance, and the strengths and weaknesses of his performance.

## Conclusions

It has been concluded that the researcher standards of reference tests Research (speed transition, explosive power, flexibility), and that the test results were acceptable for the age of the research sample tests research, and recommend a researcher using this by trainers specialized schools for the gifted in the selection of handball players Reconstruction (12-14) years old in Iraq, and conducting similar studies in variables that were not addressed in the study and on other age groups.

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