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Studying the validity and reliability of a proposed field test (Y) to measure the two physical attributes, speed and agility.

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ABSTRACT

THIS STUDY AIMS TO SUGGEST A PHYSICAL FIELD TEST TO MEASURE THE SPEED AND AGILITY OF HANDBALL PLAYERS.

IT IS BASED ON SOUND SCIENTIFIC FOUNDATIONS AND ACCORDING TO THE PRINCIPLES AND STAGES OF DESIGNING TESTS, ON THIS BASIS, WE ASSUMED THAT THE FIELD TEST ENJOYS KNOWLEDGEABLE SCIENTIFIC BASES OF HONESTY, STABILITY AND OBJECTIVITY, AND TO VERIFY IT WE USED THE DESCRIPTIVE APPROACH, WHERE THE RESEARCH SAMPLE CONSISTED OF HANDBALL PLAYERS UNDER 17 YEARS OF AGE INVOLVED, AMONG THE CLUBS OF THE SAIDA REGIONAL LEAGUE, THERE ARE 266 PLAYERS IN THE RESEARCH COMMUNITY

1.Introduction:

There is no doubt that the areas of measurement, evaluation and sports tests are considered a cornerstone in the real practice of the science of sports training on the field, through testing, measuring and evaluating the performance of sports teams in any sports field, whether in terms of the physical side, the psychological and cognitive sides, or the skill and planning sides. (Aleash.N - Krish , 2019, p. 1261), Where sports training in the modern era has become a process directed at achieving the level of the athlete, and this is through a number of standard and calendar processes and preparatory and training programs to know the level of physical fitness in order to lay a sound basis for building it to the fullest, and speed and agility are among the most important physical characteristics that greatly affect the The level of athletic performance, which makes it effective and accurate with regard to the appropriate posture, as it represents the correct integration and coordination of the nervous system with the musculoskeletal system, which through cooperation between them, the movement is built in its entirety and in full coordination. (Felice Di Domenico and Tiziana D'isanto, 2019, p. 1836), From here, we have to keep pace with the tremendous development that characterizes the process of progress in the field of sports training, through research and scientific studies that highlight the importance and impact of physical effort on the performance of athletes, led us to realize the full truth, which shows that whenever the process of measurement and testing of the efficiency and physical fitness of the athlete. good whenever this contributes positively to the “success of a training program and that depends to a large extent on the satisfaction of the associated performance objectives, which consequently leads to the required athletic performance and achievement.” (Brian Mackenzie, 2015, p. 05).

The progress in the sports field, especially sports training, shows us that it is proceeding in line with modern scientific research. In the training fields, a set of field physical tests appeared with modern electronic equipment for measurement, and this is in the field of sports training sciences, so that these physical tests are considered a series One of the measurements that help determine the state and status of the physical fitness or athletic ability of the athlete (Jacqueline Tran, 2017, p. 02), Measurements and tests are among the important foundations and factors that embody training programs by translating sports performance results, whether at the level of the individual athlete or the team. It also highlights their role in the diagnostic and

classification process, follow-up and observation of development and progress, through which the level of mental, psychological and physical qualities of the athlete can be measured. (Nurlan Kusmaedi, Ahmad Chaeroni, 2019, p. 175).

From here we can say that the specialist in the sports field must be excellently skilled in his use of the means, equipment and methods of the standard process appropriate to the characteristic of sports activity and the target physical characteristic, and this is in order to complete the continuous evaluation processes until the desired goals are achieved, and the sports specialist must To ensure the level of improvement in their performance, from here, specialists in the sports field have developed a set of tests and measurements, which are characterized by a level of stability, which we can perform several times and in several circumstances and give the same results. (Steven P. Broglio • Barry P. Katz, 2018, p. 1256), Therefore, physical fitness tests, both field and laboratory, are among the important ways and means of measurement in sports fields, which have recently witnessed a lot of scientific progress. Physical fitness, especially in measuring the two physical attributes, speed and agility (agility), after the emergence of a set of tests that simulate the actual performance of student athletes, so that their results are more realistic and credible to express their levels. (Nining W. Kusnanik, 2019, p. 1272), The two physical qualities, speed and agility, are very important elements of fitness for students in sports institutes or athletes on a large scale, as these two qualities are considered among the basic elements that an athlete needs, so when we combine speed and agility, we produce agility of the body, which combines the components of fitness and fitness Kinetics and here physical characteristics come into play Especially height, weight and gender play a big and important role in the level of physical fitness and movement and the appropriate way to measure them correctly (Dr. Mahesh Singh Dhapola and Dr. Bharat Verma, 2017, p. 313), Whereas, agility (speed and agility) is an important characteristic of team sports. There is a growing interest in the factors affecting agility performance as well as appropriate testing protocols and training strategies to assess and improve this quality. (Darren J.Paul and Tim J.Gabbett and George P.Nassis, 2016, p. 421), Most team sports such as basketball, American football and handball are characterized by rapid acceleration, deceleration, and change of direction over relatively short distances. A rapid change in direction or speed of the entire body in response to a stimulus (Jay Dawes, 2019, p. 09), Hence, it must be said that

the areas of measurement, evaluation and sports tests are considered a cornerstone in the real implementation of the science of sports training and the application of its programs on the field, through testing, measuring and evaluating the performance of sports teams in any sports field, whether in terms of the physical side, the psychological and cognitive sides, or the skill and planning sides .

Physical tests are a very important factor in improving the level of performance and its development because of their great importance in helping specialists in the sports field to know the characteristics that result from the effectiveness of the training programs or selective programs and to know their effectiveness through the process of follow-up and evaluation. One of the most important types of measurement and evaluation methods in the fields. (James L. Farr, Nancy T. Tippins and Other, 2017, p. 21).

Therefore, reliance on field tests in measuring and evaluating the physical fitness, through which it is necessary to make sound conditions for setting these field tests according to the codified scientific foundations in order to measure the physical characteristics , Here, as a researcher, I Studying the validity and reliability of a proposed field test (Y) to measure the two physical attributes, speed and agility, modified in terms of shape, and only from an original, well-recognized and internationally recognized test. Which will be appropriate to the characteristics of performance, effectiveness and projection at the level of the field ground, through what I have addressed in building the general forms of my study, Therefore, we asked the following question:Is the proposed field test (Y) characterized by scientific bases in measuring speed and agility?

1.1. General hypothesis:

- The proposed field test (Y) characterized by scientific bases in measuring speed and agility.

1.2. The objectives of the study: Represented in the following points:

- Participation in finding solutions to the problem of measuring physical attributes, especially speed and agility among handball players.
- Knowing how the measurement process affects the training level (the physical aspect).
- Demonstrate the importance of measurement and evaluation methods in building training programmes.
- Identifying the level of the two physical attributes, speed and agility among handball players, and the way to measure them.
- Demonstrate the importance of speed and agility in the sports field.

- Suggesting a field test in the form of (Y) to measure both the speed and agility of handball players.
- Knowing the effectiveness of the proposed field test in the form of (Y) in measuring speed and agility in handball.

1.3. The importance of the study: It was represented in the following points:

- Emphasis on the correct projection of scientific and codified sports training and linking it to the reality of the process of measurement, evaluation and testing in the sports field.
- Detecting the degree of influence of the measurement process (physical tests) on physical characteristics (speed and agility).
- Contribute to providing solutions to scientific and practical problems of the target sample.
- Judging the efficacy of the field test (Y) by comparing the results.
- Strengthening the field of handball and the library with a scientific reference.

1.4. Terminology of study:

1.4.1 The test:

- **Linguistic definition:** In the language, the test means (exam) and the word tell him means (test it) or (try it). (Sousane Hadoud Imane, 2018, p. 20).
- **Idiomatic Definition:** A tool or means used to carry out a specific measurement, and this tool may be written, verbal, mechanical, or another type. (Belmailuod Abadia, 2017, p. 10)
- **Procedural definition:** It is a set of problems, questions and exercises that are presented to the athlete in order to identify the level of his knowledge, competence, readiness and abilities.

1.4.2. Measurement:

- **Linguistic definition:** It is said that so-and-so is not measured by so-and-so, i.e. he is not equal to him. The estimation calls for equality, as it is the addition of one matter to another addition that requires equalization between them. (Noura Bent Marezuok ELmotrafi, 2022, p. 27).
- **Idiomatic Definition:** It is the process of collecting data, observations, and (numerical) information on the trait or trait to be measured. (Sousane Hadoud Imane, 2018, p. 22).

- **Procedural definition:** It is a process in which a set of properties of groups, objects, events, phenomena, descriptions,or traits are collected according to some scientific rules and conditions.

1.4.3. The speed :

- **Idiomatic Definition:** It is the ability of an individual to perform a movement or group of movements from one place to another in the least possible time. (Mezaoughi Hosine, 2017, p. 07).
- **Procedural definition:** It is the ability of an athlete to perform several types of movements, whether from a fixed or mobile position, in order to achieve the best performance in the least possible time.

1.4.4. Agility:

- **Idiomatic Definition:** It is a compound kinetic trait, embodied through the integration of physical traits and skill aspects of kinetic performance. (Boudabouse Mona, 2015, p. 09).
- **Procedural definition:** It is the ability of an athlete to change the direction of his body or part of his body quickly and sequentially.

1.5. Previous studies:

1.5.1.The first study: Study - Sebkha Mohamed Al-Amin (year 2020), under the title: Designing a composite skill test to measure the level of performance of the players of the first national football division, and the study aimed to design a composite skill test to measure the level of performance of the senior players of the first national football division and to determine Scientific foundations, degrees, and standard levels that are significant and logical for this test, and the researcher used the descriptive approach in the survey method. Among the most important results that were obtained:

- A composite skill test was designed to measure the performance level of the senior National Football League players.
- Significant and logical standard levels of the composite skill test were determined to measure the level of performance of the senior national football division players.
- The designed test is based on scientific foundations of validity, reliability and objectivity.

1.5.2.The second study: Study - Sanusi Abdel Karim (year 2017), under the title: Designing a composite skill test to measure the skill performance of football juniors, where the study aimed to design a composite test to measure the skill performance of young people in Algerian football with setting standard degrees for the skill test The composite and reliance on it in knowing the level of juniors in Algerian football clubs, and the researcher

used the descriptive approach in the survey method as it is the most appropriate approach to the nature of the study. 20 years old and under 21 years old, and the total sample size was 1835 players, In the end, the following results were obtained:

- Develop an effective and designed complex skill test to measure the skill performance of Algerian football juniors.
- The designed test is based on sound scientific foundations.
- Setting standard scores for the proposed composite skill test that can be relied upon to know the level of juniors in Algerian football clubs.

1.5.3. The third study: Erik Keš, Matevž Hribernik, Anton Umek, Anton Kos (in the year 2020), under the title: Sensor system for agility assessment: T- Test case study To put a sensor system device for the test (T) in order to make it more accurate and stable, where the researcher used the experimental method in a case study style, and the research sample consisted of a group of athletes for performance, Among the most important results obtained are the following:

- Provide a sensor system to support the reliability and credibility of the T-test.
- The possibility of generalizing the proposed device to some other field tests.
- Introducing new sports technology in the sports training field.

1.5.4. Fourth Study: Study - Surhat Muniroglu, Erdem Subak (2018), under the title: A Comparison of 5, 10, 30 Meters Sprint, Modified T-Test, Arrowhead and Illinois Agility Tests on Football Referees, where the study aimed to find reliable, credible and stable physical tests for running and agility among football referees, by conducting a comparative study between distances of 05 meters, 10 meters and 30 meters, through the following tests: T-Test And the Arrowhed Agility Test and Illinois Agility Tests, and the researchers also used the experimental method, and the sample of the research was represented in 72 male football referees in Ankara, Turkey. Tests was a positive relationship, and FIFA and UEFA must take into account these results in order to select and select referees.

1.5.5. Fifth study: A study - Haris Pojskic and Erik Aslin Har (2018), under the title: Importance of Reactive Agility and Change of Direction Speed in Differing Performance Levels in Junior Soccer Players: Reliability and Validity of newly developed soccer - specific tests, which aimed This study aims to determine the reliability and validity of the newly developed S RAG and S CODS tests to distinguish between levels of performance, where the

researchers used the experimental method, and the research sample consisted of 20 players divided into three centers (defenders, midfielders and strikers) aged between 17 and 19 years, and among The most important results obtained This study confirmed the high reliability of the newly developed football tests for young players under 17 and 19 years old.

2. Method and Materials:

2.1. The sample and its selection methods:

The research community in Tissemsilt state handball teams represents a category under 17 years old Saida, they are divided into six clubs, totaling (266) players.

As for the research sample, it numbered 161 players and religion, representing (62.05 %), from the search community, where a sample was tested to determine the characteristics of validity and reliability, randomly from the research community clubs in the number of 52 players they represent the research community by (14,5%).

2.3. Research/study procedures:

2.3.1. Method: The descriptive survey method was followed because it is in line with therequirements and characteristics of the study, Where Muhammad Hassan Allawi and Osama Ratib say:" The descriptive research aims to determine the conditions and relationships that exist between facts and appearances, and the survey method Seeks to collect data from community members in an attempt to determine the current state of the community in a particular variable or variables" (Mohamed Hasan Alaoui Osam Rateb, 2000P 140) .

2.3.2. Define variables and how to measure them:

A) The independent variable: Suggested field test (Y).

B) The dependent variable: physical attributes, speed and agility.

2.4. Search tools:

2.4.1. Observation: It is considered one of the most important data collection tools and is often the direct cause of crystallization of the research idea or problem for the researcher.

Where he was able to watch a group directly, and we used in our research this simple observation by virtue of the fact that the researcher

Handball coach and in close contact with the juniors. Thanks to this field experience, we were able to identify the research problem and monitor many observations and opinions about

Study subject.

2.4.2. The interview: After defining the problem, and in o**rder to** gain.more insight into the subject, we conducted several interviews with a number of professors, researchers and trainers of various levels, trying to benefit from their experience and opinions on the subject of the study.

2.4.3. Sources and references: It includes everything related to the research and the subject of the study

From books, notes, journals, scientific journals, texts and legal decrees, as well as similar studies, such as research and studies.

Precedent.

2.4.4. Questionnaire: It is one of the most effective means of searching and collecting information for the research service, and it is one of the means used on

In our study, we used this questionnaire to present the proposed test to experts and specialists in order to judge it and express their opinions.

and their comments on the proposed test as a subject for study

2.4.5. Physical exams: The aim is to measure the physical aspects, as they give us a clear picture of

The physical condition of the individuals so that we can reach to stand on the physical capabilities, in order to

Assessment of an individual's physical level. **(Ataellah Ahmed and Boudaoud , 2009, p. 103)**

Test: Proposed (Y) test to measure speed and agility.

Objective: To measure the physical characteristics of speed and agility.

3. Research areas:

3.1. Spatial field: Research procedures have been applied in various handball fields of clubs in the state of Tissemsilt.

3.2. Human field: Handball players in the state of Tissemsilt, under the 17-year-old category, who are involved in the Saida Regional League.

3.3. Time domain: The study began in 2018, and this is
By researching and looking at previous studies that dealt with such a study, especially in terms of designing skill tests in
The sports field, in addition to collecting the news material and forming the theoretical background for the topic, and the field study was conducted during the years 2021 and 2022 by conducting exploratory experiments and applying the test designed in its formula
The final statistical treatment was carried out during the year 2022.

. Exploratory experiments:

4.1. First exploratory experiment: Respecting the principles of preparing and building tests and following the design stages, the researchers prepared a list of more
Field tests to measure speed and agility were distributed to a group of coaches and professor's researchers in the sports field in order to be nominated.
A group of experts and specialists in order to arbitrate and submit their comments and amendments they deem appropriate.

4.2. Second exploratory experiment: After the initial design of the proposed field test, it was applied to a sample of 13 players in order to identify
Its validity in terms of application, the validity of devices and equipment, as well as standing up to difficulties, in addition to knowing the time
The test Through the first reconnaissance experiment, some modifications were made to the test, including adjusting the angles in the form of
the test.

4.3. Third exploratory experiment: The second exploratory experiment was conducted on 30 players on November 27, 2022, representing the research community

Its aim:

1.Training the assistant work team on how to implement the selection and record the results.

2.Determine the scientific bases for the test, which were as follows:

5. Scientific foundations of test vocabulary:

5.1. Test vocabulary validity: That is to say, if the same test is repeated on the same individuals and in the same circumstances, it will give

same results. (Bengoua Ali , 1997 P 57) **(Bengoua Ahmed , 1997, p. 57)** , Among the methods used by the researcher to measure the stability of the test are:

5.2. Retest method: The researchers applied the test to a sample of 20 players from the Wifak Tissemsilt handball team, under the age of 17, and a week later, under the same conditions, the test was repeated on the same sample. After getting the results

The researcher student used the Pearson correlation coefficient and after detection in the table of indications for the correlation coefficient at the level of

Significance 0.05 and degree of freedom 08 It was found that the calculated value for each test is greater than the tabular value (0.57).

5.3. Half-segmentation method: The researcher applied the test designed on a sample of 40 players, where he arranged the results in ascending order and then

Divide it into two equal groups with a total of 20 players for each group and after statistically processing the results using spss

Extracting the value of "t" student.

5.4. Variation method using the Alpha-Cronbach equation: The Alpha-Cronbach equation depends on the variations of test vocabulary, and requires that test items measure only one trait,

Therefore, the researcher calculated the reliability coefficient for each part separately, and then calculated the reliability coefficient of the test as a whole.

6. Validity of test vocabulary:

In order to verify the validity of the test, the researchers used several types of validity

6.1. The sincerity of the arbitrators (virtual):

It is judging a thing by merely observing it outwardly that it is true in measuring what it was created for the purpose of where it was presented

The test designed by some specialists in the field of sports handball and in the field of tests to take their notes

Scientific research on the designed test, and they answered with the ability of the test to measure what it was designed for, thus achieving the purpose

The test approval rate is (100%).

6.2. Self-honesty:

Self-honesty is measured by calculating the square root of the test

reliability coefficient, as follows:

Subjective validity coefficient = (test reliability coefficient) ½.

6.3. Empirical honesty:

The two researchers tested the experimental validity coefficient, by using the Pearson-Pearson correlation equation

The test items are among themselves as criterions (the internal validity of the test), and in general it can be said that there is a correlation between

The test items were included among themselves, then the researchers calculated the correlation coefficients between each item and the test as a whole.

7. Objectivity of the test:

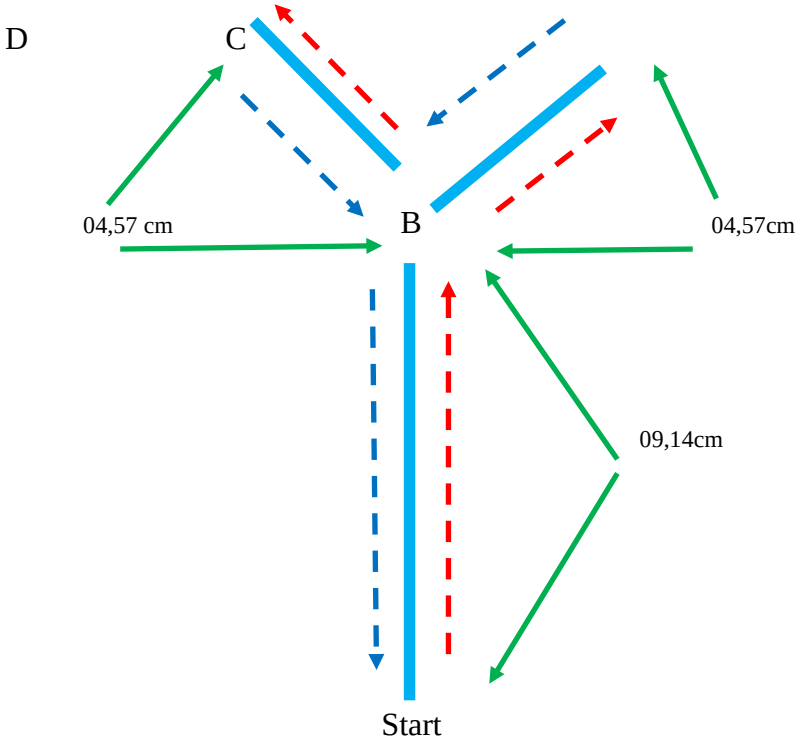
The less the discrepancy between the arbitrators indicates that the test is objective, so the researchers conducted a test

Objectivity of the test designed on the results of 07 players from the research sample and evaluated by arbitrators.

7.1. Proposed test specifications:

- **Test name:** Suggested physical field test.
- **The purpose of the test:** to measure speed and agility.
- **Tools used:** metric tape, cones, timer, whistle, protractor, ruler, string.
- **Performance method:** Starting from point(A) quickly towards point(B), going to point(C), returning(B), going to point(D), returning to pointing, returning to point(B), returning(A).

- **Performance conditions:** Touching the cones, running sideways in the relevant part of the test in the form of a letter (V) and running backwards when returning from point (B) to point (A).
- **Registration method:** Two attempts to score the best attempt.



An illustration of the proposed test (Y)

8.Presentation, analysis and discussion of results:

8.1Presentation, analysis and discussion of the results of the

8.1.1. stability of test items:

Stability by retest:

Test vocabulary	Voulmethe sample	for value tabular	Validity
speed and agility	07	0,50	0,55

Table No. (01) shows the stability coefficient.

Through the results of the table, we find that the calculated t value is 0.55 for the test items at all

The age group is less than 17 years under investigation, and all of them are greater than the tabular value, which was estimated at: 0.50 at the significance level of 0.05.

The degree of freedom is 07, which indicates that the proposed test has a high degree of stability, and all previous studies

I used this type of stability and the results were consistent with what we got.

8.1.2. Half-segment stability:

Test	senior group		senior group		value (t) calculated	value(t) tabular	Statistical significance
	$\bar{x}$	σ	$\bar{x}$	σ			
speed and agility	18,12	0,56	20,35	0,71	05,68	01,45	Statistically significant

Table (02) shows the discriminating ability of the test between the upper and lower groups.

The table shows the results of the discriminatory ability of the test in measuring speed and agility, where the sample group obtained a mean Arithmetic and standard deviation equal to 0.56 and 18.12, respectively, while the second group got a mean

The arithmetic and standard deviation are equal to 0.71 and 20.35, respectively, and the calculated value of (T) is 05.68 and greater than Tables of 2.43, 01.45 at 30 degrees of freedom and with an error rate of 0.01 and 0.05, respectively.

8.1.3. Internal consistency method:

Test vocabulary	Correlation coefficient value
speed and agility	0.54

Table (03) shows the correlation coefficients between the test items**.**

9 Presentation, analysis and discussion of the test items validity results:

9.1. Virtual validity:

variable	The calculated (K2) value	The tabular(K2) value	Statistical significance
Virtual validity	07	4,43 ، 2,34	significance

Table (04) shows the value of the (K2) test calculated to determine the validity of the test.

Table (04) shows the results of determining the validity of the innovative test, where the calculated value of (Ka)2 appeared equal to (07) And after comparing it with the tabular ones, which equals (4,43 ، 2,34) at a degree of freedom (1) and an error rate of 0.05,(0,01) respectively, it turned out to be greater than the tabular value and with a statistically significant significance, and this indicates that
The test designed by the researchers is suitable for measuring speed and agility.

9.2. Objectivity of the test:

variable	Calculated (P)	Tabular (P)	Statistical significance
objectivity	0,78	0,5735 ، 0.433	significance

Table (05) shows the significance of the correlation to the objectivity of the test.

After obtaining the data for the objectivity test, the researchers processed it statistically. And that

By extracting the value of the correlation coefficient between the degrees of the two judgments. Which was the value ( ) of the calculated correlation coefficient of 0.780,5735 ، 0.4330,5735 ، 0.433
It is greater than the tabular value of 0,5735 ، 0.433at a degree of freedom of 8 and a significance level of 0.05,0.01, respectively, and it is statistically significant, and this indicates the objectivity of the test
The proposed means that the test developed by the researchers is taken with its results with a high degree of confidence.

10.Conclusions:

- A field test design was developed to measure speed and agility.
- The scientific bases of the designed skill test, which are represented in honesty, reliability and objectivity, have been verified by more than Method.

11. Hypothesis discussion:

Through the results obtained in the previous tables, which were centered on the scientific foundations of the proposed test (Y) to measure the speed and agility of handball players, in terms of honesty, stability and objectivity, so that we studied the validity of the proposed tool in more than one way and this is in order to add scientific proof Strong for the proposed test, beginning with the stability of the test vocabulary as shown in Table No. (02): where the table shows the tabular and calculated Pearson coefficient values and the reliability of the proposed test (Y), And that is through using the Pearson coefficient to calculate the statistical stability, through which we can say that the proposed test (Y) had a statistically significant result, and from here we can say that the correlation was strong and stable between the vocabulary of the proposed test (Y) through its results, we can say that the correlation is stable and strong. This is consistent with the study of Sanusi Abdel Karim (2017) and the study of Sebkhat Muhammad (2020), where the two reached almost the same results regarding experimental validity and its adoption as a scientific tool to test the validity of the tool.
After that, we touched on the stability study of the proposed test (Y), beginning with the study of stability by the half-segmentation method, where its results were consistent with the study of Erik Keš, Matevž Hribernik, Anton Umek, Anton Kos, in the year 2020 of adopting this type of stability obtained, This confirms that the proposed physical test (Y), which the researcher designed, takes its results and can distinguish between the levels of the tested players. As for the objectivity of the test, all conditions were applied during the performance process, data collection and the method of analysis, where it can be said that the proposed test (Y) is

characterized by high objectivity, its results can be taken into account, and this is through the results of Table No. (05) which were at a level of 0.78 For the calculated and 0.5735, and, 0.433 for the tabularity Through these conclusions we have reached that our hypothesis has been achieved and accordingly we can say that the proposed field test (Y) is effective in measuring the two physical characteristics of speed and agility of handball players

12. Recommendations:

- The necessity of adopting the proposed field test in measuring speed and agility.
- Adopting the criteria that emerged from the results of the study in measuring and evaluating young players in handball.
- Take advantage of this test in other areas, such as in the process of selecting players.

References:

-Aleash.N - Krish . (2019, December 12). Measeures of Agility and Single Legged Balanced as Clinical Assesments in Patients Whithe Anteriore crucaite ligament reconstructoin and healthy individuals. (A. Krish, Éd.) *Jornal of Athletic Training, 12*, 1261. doi:10.4085/1062-6050-266-18

-Ataellah Ahmed and Boudaoud . (2009). *Mentor in scientific research for students.* Ben Aknoun,Alger, Algeria: Office of University Publication.

-Belmailuod Abadia. (2017, Februry 23). Brief definition of measurement terms. *Mathematical Tests and Measurement* (p. 10). Stief - Algeria: Department of Science and Techniques of Physical and Sports Activities - University of Mohamed Lamine Debbagne Setif 2. doi:https://cte.univ-setif2.dz/moodle/course/view.php?id=154

-Bengoua Ahmed . (1997). *TMRS.* Mostaganem:, Algeia: University Mostaganem.

-Boudabouse Mona. (2015). *The effect of mini-games on developing agility and improving dribbling skills.* Institute of Science and Technology of Physical and Sports Activities, Department of physical education and sports. Oum El Bouaghi - Algiria: Larbi Ben M'hidi University - Oum El Bouaghi. doi:https://search.emarefa.net/ar/detail/BIM-971559-%D8%AA%D8%A3%D8%AB%D9%8A%D8%B1-%D8%A7%D8%B3%D8%AA%D8%AE%D8%AF%D8%A7%D9%85-

%D8%AA%D8%AF%D8%B1%D9%8A%D8%A8%D8%A7%D8%AA-%D8%B3%D9%84%D9%85-%D8%A7%D9%84%D8%B1%D8%B4%D8%A7%D9%82%D8%A9-%D8%B9%D9%84%D9%89-%D9%85%D8

-Brian Mackenzie. (2015). *101 Performance Evaluation Tests.* London, United kingdoom: Electric Word plc 67-71 Goswell Road London EC1V 7EP Tel: 0845 450 6402. doi:1-905096-18-6

-Darren J.Paul and Tim J.Gabbett and George P.Nassis. (2016, Janurary 23). Agility in Team Sports: Testing, Training and Factors Affecting Performance. (S. Medcine, Éd.) *Sports Medcine, 46*(44), 421. doi:https://doi.org/10.1007/s40279-015-0428-2

-Dr. Mahesh Singh Dhapola and Dr. Bharat Verma. (2017, December 12). International Journal of Physical Education, Sports and Health. (N. I. IJPESH, Éd.) *International Journal of Physical Education, Sports and Health, 04*(02), 313. doi:https://www.kheljournal.com/archives/2017/vol4issue2/PartF/4-2-45-344.

-Felice Di Domenico and Tiziana D'isanto. (2019, October 22). Role of speed and agility in the effectiveness of motor performance. (V. (. Journal of Physical Education and Sport ® (JPES), Éd.) *Journal of Physical Education and Sport, 19*(05), 1836. doi:DOI:10.7752/jpes.2019.s5271

-Jacqueline Tran. (2017, January 05). Consensus on measurement properties and easibility of performance tests for theexercise and sport sciences: a Delphi study. (D. U. Center for Exercise and Sport Science, Éd.) *Sports Medicine - Open, 03*(02), 02.

-James L. Farr, Nancy T. Tippins and Other. (2017). *Handbook of Employee Selection -Physical Performance Tests* (éd. 2nd edtion). (Routledge, Éd.) New York, USA: Routledge. doi:doi.org/10.4324/9781315690193

-Jay Dawes. (2019). *Developing Agility and Quicknees* (éd. Second edition). (H. Kinitics, Éd.) New york, USA: National Stangth and Coditioning Association. doi:ICCN:2018035096

-Mezaoughi Hosine. (2017). *The effect of using small games in the development of speed among male football players for the category of 13-14 years.* (D. Mostaganem, Éd.) Mostaganem: Universaty Of Moastaganem. doi:I: http://e-biblio.univ-mosta.dz/handle/123456789/9547

-Nining W. Kusnanik. (2019, Augest 11). Effect of Reactive Agility Training Drills on Speed and Agility in Indonesian University Students. *The Journal of Social Sciences Research, 05*(08), 1272. doi:https://doi.org/10.32861/jssr.58.1272.1275

-Noura Bent Marezuok ELmotrafi. (2022, Janury 05). Measurement and its division into obvious and hidden according to the fundamentalists. (N. B. ELmotrafi, Éd.) *The Scientific Journal of the Faculty of Sharia and Law in Assiut - Al-Azhar University*, 27. doi:10.21608/jfsu.2022.215024

-Nurlan Kusmaedi, Ahmad Chaeroni. (2019, March 13). Prioritizing Intelligence in Conducting Football. (S. E. Program, Éd.) *Advances in Health Sciences Research, 11*, 175. doi:ICSSHPE 2018

-Sousane Hadoud Imane. (2018, October 26). Exams in physical education. (F. o. Sciences, Éd.) *Exams in physical education*, p. 20. doi:https://physical.uobabylon.edu.iq/lecture.aspx?fid=14&lcid=80629#

-Steven P. Broglio • Barry P. Katz. (2018, March 14). Test-Retest Reliability and Interpretation of Common Concussion Assessment Tools: Findings from the NCAA-DoD CARE Consortium. (c. p. The Author(s) 2018, Éd.) *Sports Medicine*, 1256. doi:10.10007/s402279-0117-0813-0