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CREATING GRADES AND STANDARD LEVELS ACCORDING TO SPECIALIZED SKILL TESTS DESIGNED FOR THE 50M BACKSTROKE SWIMMING CATEGORY OF APPLICANTS

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Abstract
The importance of the research lies in finding standard grades and levels according to specialized skill tests to know the strengths and weaknesses of the performance levels in the 50m backstroke for the applicant category. Therefore, the importance of the research was evident in the evaluation process using tests and measurement for the specialized tests designed (skills) that reflect the condition of the real swimmer. The research problem that the researchers, who through this research wanted to find solutions to this problem, were born out of the fact that the process of evaluation and finding standards is a matter of quick decisions and is a personal evaluation based on scientific foundations.
The researchers used the descriptive survey method to achieve the research objectives. The research sample included swimmers from clubs (Baghdad-Maysan) for the 2023/2024 sports season. The SPSS Ver 21 statistical package was used.
A set of conclusions were reached, the most important of which are:
1- Specialized skill tests are the best way to determine the true condition of swimmers.
2- The levels found by the researchers represent the true level of swimmers' skill capabilities and capabilities.
3- Most of the swimmers among the research sample were at the average level, at which the highest percentages were achieved. The most important recommendations are:
1- Adopting the specialized tests and levels created by researchers.
2- Innovation in creating standard grades and levels contributes to identifying the strengths and weaknesses of swimmers.

Keywords: Standard levels - skill tests - swimming (50) meters.

Introduction

Tests and measurement are one of the most important means used in evaluation and its basic tools sometimes, through which the information and data necessary for the achievement of scientific research are collected, and the research problems facing researchers are solved, without which we cannot find solutions to research problems, as they provide us with data through which we can identify weaknesses and find appropriate solutions to address that weakness, as the tests used in scientific research show us the importance of objectively measuring the events and qualities that you want to measure, so the studied scientific method is the basis for access To high achievement in any sporting event. As well as giving the real indication of the capabilities possessed by athletes, and this is confirmed by (Raed Muhammad Mushtat, Tabarak Saeed) that "tests and measurement are the basis for sports activity because they accompany the athlete from his selection until he reaches the upper levels" (Mshatat & Yaqub, 2024), as well as (Zahraa Zaalan Mohsen, Abeer inside Hatem Al-Salami) that tests in the sports field "a contributing tool of evaluation tools, on which the rest of the sciences are based, the most important of which is learning and training, and it has many benefits, as tests may be designed to measure many physical, skill and functional abilities" (MOHSIN & Al-Selmi, 2023), while (Naima Zidan Khalaf) confirms that "the idea of designing and codifying tests came to give numerical indicators indicating the level of training and how to evaluate it" (Khalaf, 2022) Therefore, it was necessary to benefit from it to promote sports events and in swimming, so those in charge of the evaluation or evaluation process are in dire need to develop and raise the efficiency of measurement tools, because the basis of each process, whether it is a successful selection or comparison between a group of testers, is based on the availability of conditions and accurate scientific foundations in the means of measurement .Hence the importance of research, where tests and measurement are one of the important means in the evaluation process if these tests are prepared scientifically and the successful trainer always needs to know the result of what he does during the training processes and whether he is on the right track or not and whether he can achieve the goals set and can not answer these questions only through the application of specialized tests, which will give a clear picture reached in the training work to be able after This modifies or changes some direction of the training process to enable it to reach the objective goals. The researchers believe that the importance of the subject lies in the process of finding grades and standard levels to be real numerical indicators that reflect the condition of the swimmer, and the level of training and adaptation in addition to serving as a scientific evidence through which the performance of the individual can be compared within the group to which he belongs, as well as facilitating the selection or selection process to represent the teams and the extent of the possibility of participating in tournaments and the possibility of achieving results and reaching high achievement.

The objective of the study

-Develop specialized skill tests for backstroke swimmers (50 m) category of applicants in Iraq.

-Setting standard levels according to specialized skill tests for swimmers in Iraq, the category of applicants.

Research Areas:

-1-4-1Human field: Iraqi swimmers are in the category of applicants for the sports season 2023-2024

-2-4-1Spatial area: Olympic People's Swimming Pool / Baghdad, Swimming Pool / Petrojaina Swimming Pool (PETRO CHINA HALFAYA) of the Maysan Oil Company / Halfaya Fields Authority

1.4.3Time Domain: Period from 15/7/2023 – 5/4/2024.

Methods and structure of the study

Epermental approach to the problem

The method is "the scientific path taken by researchers in solving a research problem, as the nature of the problem dictates a certain method to reach the truth" (51:19 Nouri). Accordingly, researchers will adopt the descriptive approach in its survey method because it is the best and easiest approach to reach the achievement of the research objectives. Survey

Participants

The research community represented the advanced swimmers in freestyle and backstroke in some clubs of the central and southern governorates of (Baghdad - Maysan) in Iraq and the participants in the competitions of the Iraqi Central Swimming Federation for the competitive season 2022-2023, which numbered (94) advanced swimmers representing (8) clubs, namely (Army - Police - Adhamiya - Kadhimiya - Amara - Maysan Oil - Maymouna - Prince (

As for the research sample, they were selected in a deliberate way to achieve the objectives of the research, and the number of (73) swimmers represented the research sample and a percentage of (77.659%) of the total population of the research, they were divided into a sample building (43) swimmers and a sample application (30) swimmers, After that, the researchers determined the sample that will be regulated by the tests, which included (43) swimmers representing the clubs (Adhamiya, Kadhimiya, Army, Police) category of applicants and constituted a percentage of (58.9%.(

Table (1 (Shows the homogeneity of the research sample in age, height and weight using the torsion coefficient which shows the values of Between (–3, +3)

Torsion coefficient	Median	standard deviation	mean	Statistical parameters of variables
1.973	20.000	2.013	21.324	Chronological age
-0.756	8.000	1.361	7.657	Training age
1.072	174.500	2.429	174.868	Length
0.0005	226.000	2.367	226.473	Length with arm
0.4035	72.000	3.516	72.473	Mass

Procedure

)Arab and foreign sources, questionnaire form, tests and measurement, personal interviews, light board, colored balls, heavy belts, swimming pool, stopwatch, cones inside the water medium, whistle, tape measure

Field Research Procedures

The initial version of the tests was prepared, and placed in a special form for the purpose of presenting it to a group of experts and specialists, as their number reached (18) specialists and experts to express their opinions on the validity of these tests and their suitability for the purpose for which they were prepared, and after receiving answers from specialists and experts, the tests that achieved a percentage of (75%) and above were selected according to the opinion of (Bloom et al. 1983) as he confirms that "researchers must obtain a percentage of agreement (75%) or more to accept the phenomenon" (2: 125). Exploratory Experience:

After obtaining percentages of agreement on the proposed tests, the researchers conducted the first exploratory experiment by applying the tests in a field application, and the time of implementation of the tests was on Thursday (15/6/2023) at exactly ten o'clock in the morning on the swimmers of the Maysan Oil Club and the Prince, in the swimming pool of the Maysan Oil Company / Halfaya Authority / Petrojaina Swimming Pool (PETRO CHINA HALFAYA), who numbered (6) swimmers in the advanced category in the 50 m freestyle swimming, and after four days, the second exploratory experiment was conducted and The same sample at the same time, on Tuesday (22/6/2023) to know the time it takes to carry out the tests, the difficulties that researchers may face, knowing the adequacy of the assistant work team, as well as dividing the duties on them and the validity of the devices and tools, and ensuring the safety of the devices used.

Scientific foundations of the tests :

Any measurement or test cannot be nominated to measure a characteristic or phenomenon unless it has the scientific ingredients in terms of honesty, consistency and objectivity. Louay et al. (2010) point out that "no test can be used to measure a particular trait or skill if it lacks one of the basic scientific conditions" (12:102). Anastasia (1982) states that "this process is one of the basic steps in the construction of any scale or test, in order to reveal the scientific properties of tests that help the test maker to recognize the quality of his tests, which in turn leads to truthfulness, consistency and objectivity" (1:192.(Honesty

The sincerity of the designed tests was identified through virtual honesty and discriminatory honesty, through the presentation of tests to experts and specialists and the agreement of the majority that the designed tests were prepared to measure the skill performance of the backstroke and therefore the apparent honesty was achieved. As for the discriminatory honesty, it was identified through the application of the test on the construction sample of (43) advanced swimmers by dividing them into two groups (23) practicing swimmers and (20) professional swimmers from the applicants, and after obtaining the results, the researchers used the test (T) for independent samples, in which it turned out that there were statistically significant differences between the two groups, and in favor of the group of professional swimmers, as the values of (T) calculated in all tests were statistically significant at the degree of freedom (8) and at the level of significance (0.05) and as shown in the table (2.(

Table (2 (Shows the degree of discriminatory honesty of the differences between professional swimmers and practicing swimmers In backstroke

Significance	sigأ	T	Practicing swimmers		Professional swimmers		Statistical Treatments For tests	ت
			ع-+	س-	ع-+	س-		
Moral	**0.000**	**11.927**	**2.137**	**25.537**	**0.638**	**19.964**	**Test of movement of the arms inside the middle of the water (25 m) for backstroke**	**1**
Moral	**0.000**	**4.430**	**1.08**	**31.19**	**1.48**	**29.415**	**Test of the movement of the legs inside the middle of the water (25 m) backstroke**	**2**
Moral	**0.000**	**9.473**	**0.934**	**17.27**	**0.442**	**15.202**	**Start test from the podium for backstroke**	**3**

constancy

In order for the researchers to know the stability of the measurement, they deliberately found the stability coefficient by testing and re-testing, as the tests were applied to the sample of the exploratory experiment and then re-applied after (7) days on the first sample itself and in the same sequence of tests and under the same conditions, as the researchers extracted the stability coefficient through the simple correlation coefficient (pearson), and results with high stability coefficients were obtained, as the significance values appeared less than the significance level (0.05) and this indicates to the significance of the correlation as shown in Table 3.

Table(3 (Shows the stability coefficient for specialized tests (physical - motor - skill), backstroke

Moral differences	Sig	مُعامل الثبات	Unit of measurement	audition	ت
Moral	0.007	0.545	Second	**Test of the movement of the arms inside the middle of the water (25 m) for backstrokeر**	**1**
Moral	0.034	0.451	Second	**Test of the movement of the legs inside the middle of the water (25 m) for backstroke**	**2**
Moral	0.001	0.645	Second	**Start test from the podium for backstroke**	**3**

Objectivity

The designed tests are objective and do not accept choice or interpretation, the calculation of grades is clear and objective, which is time, so the tests are objective .

Final implementation of designed skill tests :

The tests were applied to the application sample, which numbered (30) swimmers, the category of applicants, after confirming the scientific foundations for them, which included skill performance tests.

Test the movement of the arms inside the water medium (25 meters) for swimming backstroke.

Test Name: Arm Movement Medal Test for Backstroke for Advanced Swimmers

Objective of the test: to measure the movement of the arms of swimmers

Test tools:(whistle, tape measure, 2 weighted signs, stopwatch(

Measurement and performance specifications: The swimmer stands inside the pool at the starting point, and when he hears the start signal, he swims for a distance of (25 meters) back with the movement of the arms without the movement of the legs to the end of the distance.

Recording: The time taken from the starting point to the end point is calculated.

Test the movement of the legs inside the water medium (25 meters) for backstroke.

Test Name: Medal Test for the Movement of Legs for Advanced Backstroke

Objective of the test: to measure the movement of the legs of swimmers

Test tools:(whistle, tape measure, 2 weighted signs, stopwatch(

Measurement and performance specifications: The swimmer stands inside the pool at the starting point, and when he hears the start signal, he swims for a distance of (25 meters) back with the movement of the legs without the movement of the arms to the end of the distance so that the arms are next to the body.

Recording: The time taken from the starting point to the end point is calculated.

Start test from the starting position of the backstroke

Test Name: Medal Test for Beginning Backstroke for Advanced Swimmers

Objective of the test: Measure the start from the starting position of the backstroke.

Instruments used in the test:(whistle, tape measure, 1 heavy signal, stopwatch(

Measurement and performance specifications: The swimmer stands inside the swimming pool in the starting position of the backstroke, and when hearing the start signal, the starting position, arching and then backstroke lead to a distance of (15 meters.(

Recording: The time is calculated from the starting point to the end point (15 meters.(

Analyses

The researchers used the statistical bag (spss.v21) to get the results

-Calculation of standard scores by sequential method .

-Percentage Law

Results

View and analyze the results of specialized tests designed for the skill performance of the backstroke.

Shows the arithmetic mean and standard deviation of the results of specialized tests for backstroke

Tests Unit of measurement Arithmetic mean Standard deviation

8Test of movement of the arms inside the aquatic medium (25 m) for backstroke seconds 22.238 2.365

9Test of the movement of the legs inside the aquatic medium (25 m) for backstroke seconds 29.081 2.616

) 10start) Podium start test for backstroke (sec 16.152 1.431

Through Table (5), the arithmetic mean of the test of the movement of the arms inside the aquatic medium was (25 m) for backstroke (22.238) seconds with a standard deviation of (2.365). The arithmetic mean of the test of the movement of the two legs inside the aquatic medium was (25 m) for backstroke (29.081) seconds with a standard deviation of (2.616). While the mean of the start test for backstroke was (16.152) seconds with a standard deviation of (1.431.(

Standard scores for physical and motor tests for advanced swimmers

After the data for the application sample was collected by conducting tests and the researchers obtained the raw scores and these scores are insignificant and the primary result of the test is considered a problem in comparing these scores to the total vocabulary of the test, which requires converting the raw scores to standard scores, which is "a way to determine the relative state of the raw scores and therefore these scores can be interpreted and their results evaluated" (Muhammad Hassan Allawi and Muhammad Nasr al-Din 179:14). Therefore, the results of the tests were treated statistically, where the researchers extracted the arithmetic means and standard deviations, as well as extracted the relationship to find the constant amount for each test and used it later in developing tables for the adjusted standard scores in a sequential manner as shown in Appendix (1 .(

The standard degree adjusted by the sequence method = arithmetic mean (±) the constant amount (sequence (

Wan constant magnitude = (standard deviation ×5)/50(317:2(On the basis of this characteristic, the standard scores were derived, where the upper limit of the distribution represents the maximum evaluation score (100) and the grade (50) represents the average evaluation score. while represents the minimum (zero). The arithmetic mean is placed in front of the score (50) in the standard tables, and the fixed amount is added or subtracted from the arithmetic mean of the tests, which represent the raw scores, where the fixed amount is added with the arithmetic mean in the standard score table and we put the result ascending in front of the standard score field until we reach the degree (100) and the fixed amount is subtracted from the arithmetic mean in the same table and we put the result

descending in front of the standard score field until we reach the degree (zero.(

This method has been adopted in some tests in which the adjusted standard scores of the player increase the increase in the raw score obtained and vice versa in the grades in which the standard scores decrease the greater the raw scores and to determine the standard scores that the swimmer deserves in the tests can use Appendix (1) created by researchers by comparing his raw grade with the corresponding standard score. Criteria "are the basis for judging from within the phenomenon the subject of measurement and not from outside it, so

they take the quantitative formula in most cases and are determined in the light of the factual characteristics of the phenomenon" (15:40.(

Presentation of the test levels of the movement of the arms inside the aquatic medium (25 m) for backstroke for the advanced category .

Shows the standard levels and the ratios prescribed for them in the normal distribution curve, raw grades, adjusted standard scores by sequence, number of players and percentages for each level in the test of movement of arms within the aquatic medium (25 m) for backstroke

Percentage	**Number of players**	**Sequentially adjusted standard grades**	**Raw grades**	**Standard levels and their ratios in the normal distribution curve**
/	/	81 – 100	10.438-14.922	Very good
%19.99	5	61 – 80	15.158-19.642	Good
%56.66	17	41 – 60	19.878-24.362	medium
%23.66	8	21 – 40	24.598-29.082	Acceptable
/	/	1 – 20	29.318	Weak

Through Table (6), we find that the level is very good has been represented by raw grades (56.435-69.83), which corresponds to the standard grades of (81-100) and we note that the sample did not achieve any percentage in this level, but in the good level represented by the raw grades (42.335-55.73), which corresponds to the standard scores of (61-80), as we find that the players who achieved this level are (11) players and a percentage of (22.22). As for the average level, which is represented by the raw grades of (28.235-41.63), which corresponds to the standard scores of (41-60), we find that the players who achieved this level are (16) players with a percentage of (30.55). As for the acceptable level, which is represented by the raw grades from (14.135-27.53), which corresponds to the standard scores from (21-40), we find that the players who achieved this level are (9) players with a percentage of (47.22). As for the weak level represented by the raw grades (13.43) or less, which corresponds to the standard scores of (1-20), as the sample at this level did not achieve any significant percentage.

Presentation of the test levels of the movement of the legs inside the aquatic medium (25 m) for backstroke for the advanced category .

Table(7 (Shows the standard levels and the percentages prescribed for them in the normal distribution curve, raw grades, adjusted standard scores by sequence, number of players and percentages for each level in the test of the movement of the legs inside the aquatic medium (2 m) for backstroke

Percentage	Number of players	Sequentially adjusted standard grades	Raw grades	Standard levels and their ratios in the normal distribution curve
%3.33	1	81 – 100	16.031-20.99	Very good
%13.33	4	61 – 80	21.251-26.21	Good
%66.66	22	41 – 60	26.471-31.43	medium
%10	3	21 – 40	31.691-36.56	Acceptable
/	/	1 – 20	36.911	Weak

Through Table (7), we find that the level is very good has been represented by the raw grades (56.435-69.83), which corresponds to the standard scores of (81-100) and we note that the sample did not achieve any percentage in this level, but in the good level represented by the raw grades (42.335-55.73), which corresponds to the standard grades of (61-80), as we find that the players who achieved this level are (11) players and a percentage of (22.22). As for the average level, which is represented by the raw grades of (28.235-41.63), which corresponds to the standard scores of (41-60), we find that the players who achieved this level are (16) players with a percentage of (30.55). As for the acceptable level, which is represented by the raw grades from (14.135-27.53), which corresponds to the standard scores from (21-40), we find that the players who achieved this level are (9) players with a percentage of (47.22). As for the weak level represented by the raw grades (13.43) or less, which corresponds to the standard scores of (1-20), as the sample at this level did not achieve any significant percentage

Discuss the results of specialized tests designed for the physical and motor performance of freestyle swimmers.

It is clear through the presentation of the levels of these tests that the largest percentage has gathered at the average level, which does not meet the ambition, as the arms in general and the strength characteristic of the speed of the arms in particular are of great importance and impact on the speed of movement of the swimmer within the aquatic medium, as "the driving force of the body depends on the movements of the arms, where this force ranges from (70-85%) of pushing the body forward (101:16) as one of the most important features of the movements of the arms is "work in a reciprocal movement that earns Continuous progress and most of the body's driving force comes from arm movements (10:118). (Mubarak al-Shorman et al., 2024(If we know that the movement of the arms is linked to the force characteristic of speed, which means "the ability of the neuromuscular system to overcome resistance at a high muscle contraction speed (12:20), that is, it consists of speed and strength and culminates in rapid explosive movements against resistance, and here the financial medium is ideal for its work, as the strength characteristic of speed plays with the rest of the physical qualities an important role in swimming short distances and that its development works to "increase the swimmer's ability to apply greater force against water every second FROM SWIMMING (48:8) (M. A. R. KAZEM ET AL., 2021(

Note that there are references in many studies to the importance of developing the strength characteristic of speed when training in swimming for short distances to overcome the

resistances facing the swimmer within the water medium and contribute to the legs "to a large extent in maintaining the horizontal position flowing with water and also in pushing the swimmer and performed continuously and alternately (32:9) and this confirms its importance. As for the test of the movement of the two legs linked to the concept of explosive power is a compound of force and speed is "the highest force obtained by athletes with the least time and once (76:23) so researchers see the importance of developing the explosive power of the two men when training in swimming for short distances to overcome the resistances facing the swimmer, and this is confirmed by (Adel Majeed Khazal, Mahasen Hussein Fadel) that the exercise performed using inhibitions and wooden boxes using body weight is one of the appropriate means to develop explosive power ((Khazaal & Fadel, 2024) where the swimmer was able to jump from the starting platform and achieve the best horizontal distance when starting

Note that there are references in many studies to the importance of developing speed when training in short-distance swimming to increase the speed of the swimmer within the aquatic environment as it develops through "the development of muscular strength and rapid motor frequency" (118:13(The researchers believe that the speed of movement of the swimmer in the water medium depends on two basic years, namely the length and frequency of the blow, and this includes the arms first and then the two legs second, and according to the importance of each of them in the final result of the swimmer's speed, increasing one of the two facts (the rate of length of the blow or the rate of repetition of the blow) while ensuring that there is no decrease in the other fact, (M. A. R. Kazem et al., 2021) and here we will get the greatest benefit in the rate of speed" When the swimmer wants to increase one of the two facts (the average length of the blow or the rate of its repetition), he must ensure that there is no decrease equal to or more than the equal in the other fact if he wants to obtain a development in the rate of speed (356:3) and through that the maximum amount of the average length of the blow or the rate of its repetition must not be reached, but it is more correct to reach the optimal amount for them so that the maximum speed of the body can be obtained, Because of its great importance for the speed of response in swimming, especially in starting at the beginning of the race, as one of the most important "requirements for successful start performance is the speed of response (208:1(This confirms the need to pay attention to it and give it priority when training, and the ability of the swimmer to perform the skill of backstroke is closely related to agility, which is "the ability to change the direction of movement of the body or any part of its parts quickly, which includes the aspects of speed and strength characteristic of speed and compatibility (125:22) and this confirms its importance and great role in swimming, especially short-distance swimming (M. A. R., Kazem et al., 2021). All of this needs from the swimmer to have flexibility in the joints of the body to reach the ideal performance, as he points out (Makram Attia Mohamed, Hassan Jijan Sabbar) that flexibility "depends mainly on the elasticity of the muscles and various ligaments and equally depends on the flexibility of the joints and their type and the extent of anatomical movement of the joint towards and the range of movement is determined according to the type of joint in which it works and that the ability of the joint to reach its maximum extent depends on the elasticity of the working muscle, meaning that the muscles

occur movement in The limits of the range allowed by the joint" (Muhammad & Sabar, 2024) and this confirms its importance and great impact on the movement of the swimmer.

CONCLUSIONS

-1The specialized skilled tests are the best way to determine the real condition of swimmers in the skill side.

-2The levels set by the researchers represent the real level of the capabilities and capabilities of swimmers skill and movement.

-3Most of the swimmers from the members of the research sample were at the average level at which the highest percentages were achieved

-4No percentage was achieved at a very good level, which reflects the absence of distinguished swimmers within the scope of the research sample

-5No percentage has been achieved at a weak level, which shows that there is continuity in training, but needs greater development

-6The kinetic aspect of the members of the research sample was not at the required level

-7Having a low percentage in tests at a good level

Recommendations

-1Adoption of specialized tests and levels set by researchers

-2Emphasis on raising the level of physical and motor performance of the members of the research sample by allocating more time for physical and motor training

-3The need to work on providing all the necessary supplies of training devices and tools to achieve the desired development

-4Emphasizing the physical and motor aspects and at an early age for swimmers to develop skill performance.

-5Preparing swimming pools in a way that allows training in them in all months of the year.

-6Working on designing specialized tests that include the physical and motor aspect of swimming back.

-7Work on designing specialized tests for other swimming methods that include physical, motor and skill aspects

-8Setting standard levels for all swimming methods, including physical, motor and skill aspects.

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