The Effect of Teaching Curriculum According to the Error Measures to Develop Accuracy Performance of some Types of Shooting for Junior Players in Handball

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ABSTRACT

The handball one of the games which develops in every day because they continue of researches to develop the handball skills. We see the most basic handball skills depend in its performance on accuracy, for example shooting, passing and others so we should benefit from all Error Measures which correlate in accuracy so all attempt to perform the skill correlate with some error. The problem of research included the weakness in the performance of some of shooing types for juniors in handball training center of Babylon city, so the researcher prepared teaching curriculum according to the parameters error. The aims of study : 1- knowing the effect of teaching curriculum in improve the accuracy performance of some shooting types.2- knowing the developing percent of accuracy performance some shooting types .The hypotheses of study :1-The teaching curriculum positively effect in development of accuracy performance of some shooting types.2-There are different percent of developing accuracy of perform some shooting types .The study areas : 1-Human area : The junior players of handball training center in Babylon city .2-Temporal area : from 16/12/2011 to 18/2/2012 . 3- Spatial area: The indoor hall in Babylon city .The subjects were (20) juniors from the training center for handball in Babylon. The age ranged between (15-16) years they were divided into two equal groups, each group of (10) players**.** The first group was control and the second group was experimental, which used the teaching curriculum .They completed all the (18) teaching units. Three units a week. The important conclusions: The used Error Measures in prepare teaching curriculum lead to positive effect in development of accuracy performance of some shooting types in handball.

Keywords: **error measures, handball training, teaching curriculum, training center**

1. Introduction

The game of handball is one of the games that we note the evolution continuously and there is no absolute rule for one of its schools in the world for a long time, but is undergoing continuous changes as a result of research on how to improve the performance of the basic skills effectively.

We believe that most of the types of basic skills in the game of handball depend on their performance dramatically on accuracy, such as the skill of shooting and passing , etc., so you should take full advantage of all measures error which related in accuracy in terms of dealing with the amount of error only is the state where ambiguity large as it does not sterna the underlying causes of that error in performance and that's what let researchers to deal with other variables such as the direction of the error and the absence of stability and these two variables be added to a variable amount of error to form a comprehensive picture of the performance evaluation revealed the underlying causes of errors in performance which helps coaches develop the right solutions and modify the curriculum to get to develop basic skills in hand reel easier than usual.

1.2 Problem statement

The game Handball is one of the games that depend on the accuracy of the results output motor as dramatically as the results of shooting skill which depend game on the amount of the success of this skill is essential for it must be emphasized in the process of learning to take advantage of the information that guide us accuracy tests, which rely mainly on show dimensions of the error. The problem of research was weakness in performance of the forms of shooting skill of juniors in the training center of handball federation in Babylon, so the researcher set up a teaching curriculum based on measures error result of tracking the amount, direction and variable of error through tests weekly and make the necessary adjustments to the curriculum.

1.3 The aims of study

1. Knowing the effect of teaching curriculum in improve the accuracy performance of some shooting types.

2. Knowing the differences in the post-test between the two sets of search in the accuracy of the performance of some shooting forms of junior handball.

3. Knowing the developing percent of accuracy performance some shooting types.

1.3 The hypotheses of study

1. The teaching curriculum positively effect in development of accuracy performance of some shooting types.

2. There are significant statistical between experimental and control groups in the post measurement results.

3. There are different percent of developing accuracy of perform some shooting types.

1.4 Error measures

They represent the dimensions of measurement error, "There are three measures of error can be calculated to evaluate the characteristics of the general accuracy of the performance and find out what may be the reason for the low accuracy.

1.4.1 Absolute error (AE)

"Mean to determine the general idea of the extent of success in achieving the goal ,also a measurement that determines the degree of deviation from the target response per attempt performance without regard to the direction of this response for the goal.

1.4.2 Constant error (CE)

"Mean a measurement that determines the degree and direction of the deviation from the target response ,it gives us a meaningful indicator about a tendency responses of individual to deviation to direction without the other.

1.4.3 Variable error (VE)

"Mean assess the stability (or change) performance results for a number of attempts ,also a measurement that determines the degree of coherence of responses to a number of attempts".

2. Methodology

The researcher used the experimental research by equal groups to design suitability to solve the problem of search and access to verify the research hypotheses.

2.1 Sample

The sample consisted of (20) players represented the junior team of the training center Specialist handball in the Babylon city. The sample was divided into two groups the first experimental groups (10 players) and the second was control group (10 players). The experimental group was trained according to the curriculum prepared in accordance with measures error but The control group were trained according to the curriculum coach.

2.2 Research tools and assistive devices:

2.2.1 Research tools

1. Tests and measurements
2. Sources and references

2.2.2 Tools and assistive devices
1. accuracy boxes (50 cm x 50 cm) (2)
2 . Legal by the number of balls (20)
3. Adhesive tape

2.3 Measurement of the variables

2.3.1 Shooting from the pivot and level head on boxes accuracy correction.

The purpose of the test: measuring the shooting skill
Tools: 1- handball court.
       2- Boxes accuracy (50 cm X 50 cm) in the upper corners of Goal 0
       3- balls (6).

Performance Specifications: The player performance of the two or three steps and then build on the line (7) meters and shooting on boxes from the level of the head that sent three balls on each box of accuracy boxes. Calendar: Laboratory records the number of successful attempts of shooting and that intervention where the ball is fully in boxes accuracy. Scientific transactions:
 Persistence: 0.88
Objectivity: 0.93

2.3.2 Shooting from high jumping on boxes shooting accuracy

The purpose of the test :measuring the skill of shooting
Tools : 1-handball court0
      2- boxes correction accuracy (50 cm X 50 cm) in the upper corners of Goal0
      3-balls (6)
Performance Specifications :The performance came in from one step or three steps and then jump off the line(9m) and shooting on boxes of jumping high and to send three balls on each box .
Calendar :Laboratory records the number of successful attempts of shooting and that intervention where the ball is fully in boxes
Scientific transactions:
Persistence :0.81
Objectivity :0.97

2.3.3 Shooting from front falling on the accuracy shooting boxes

The purpose of the test :measuring the skill of shooting
Tools : 1- handball court0
      2- accuracy boxes(50 cm X 50 cm) in the upper corners of Goal0
      3- balls (6)
Performance specifications : the player standing in front of the line (6) meters so that the goal behind the player laboratory and face toward his fellow standing in front of him to handles the ball to him where he return to face the goal and shooting on boxes and falling on the ground 0 and should be shooting for three balls on each0
Calendar :Laboratory records the number of successful attempts of shooting and that intervention where the ball is fully in boxes0
Scientific transactions :
Persistence : 0.90
Objectivity :0.90

2.3.4 The method of calculating the error measures
1- Absolute error (AE)

Gathered a number of attempts deviations and divided by the number of attempts we get the average absolute error attempts.

2- Constant Error (CE)

It is calculated in the same calculation absolute error except for retaining the reference arrest of the value of each bid (+ / -), where we add sign (+) to the error value when they are responding excess of what is required, or when you come the shoot on the right side (for example) from the target, and unlike so we add a negative sign (-).

3- Variable Error (VE)

It reflects the scores of responses to a number of attempts on average, where it is the less the variable error whenever value indicates that the stability and cohesion of Screened responses from each regardless of how close or far from the target. However we calculated the variable error by the standard deviation for the Value of constant error.

2.4 equal groups

For the purpose of verifying the equivalence of experimental and control groups the researcher to take advantage of the pre-test results of shooting types and make sure there are no significant differences between the two groups by testing differences using the Mann-Whitney test (Table 3-1) shows that.

Table 3-1: shows the equality between experimental and control group in the types of shooting skill

Tests	experimental groups		Control group		Mann-Whitney	Evidence	Type of evidence
	m	st	m	st			
Shooting from the pivot	2.56	0.58	1.50	0.51	47	0.85	insignificant
Shooting from high jumping	2.21	0.44	1.95	0.40	55	0.96	insignificant
Shooting from front falling	2.01	0.51	2.22	0.38	43	0.61	insignificant

2.5 Pre-test:
The pretests were applied at 16/12/2011

2.6 The teaching curriculum:

Include that the curriculum on (18) educational unit for a month and a half and by three units in the week, the time unit (90 minutes) and applied this curriculum on the experimental group, and there are tests to types of shooting skill at the end of each week, the purpose them to identify and calculate error metrics for each player and recording notes for the purpose of making adjustments in the curriculum units and subsequent finding solutions to the problems. And has direct application of this curriculum in 17/12/2011

2.7 Post -test:

Post- tests have been made to types of shooting skill on 4/2/2012 under same pre-tests conditions.

2.8 Statistical methods:

The research data are analyzed using the Statistical Package for the Social Science (SPSS)

1 – Mean
2 - standard deviation
3 - Mann-Whitney u test.
4 - Wilcoxon test.

3. Results & Discussion

For describe the results, researcher extracted the mean and the standard deviation shown in Table (4- 1) and (4-2).

Table (4-1): shows a description of the results of the experimental group

Tests	Pre-test		Post-test	
	m	st	m	st
Shooting from the pivot	2.50	0.58	4.30	0.97
Shooting from high jumping	2.21	0.44	4.71	0.88
Shooting from front falling	2.01	0.51	4.82	0.91

Table (4-2): shows a description of the results of the control group

Tests	Pre-test		Post-test	
	m	St	m	st
Shooting from the pivot	1.50	0.51	2.52	0.51
Shooting from high jumping	1.95	0.40	2.16	0.33
Shooting from front falling	2.22	0.38	2.99	0.67

For the purpose of verification of first hypothesis the researchers tested the differences between pre-test and post-test using wilcoxon test tables (4-3) (4-4) shows that.

Table (4-3): Shows significant differences between pre-test and post-test of experimental group

Tests	wilcoxon	Evidence	Type of evidence
Shooting from the pivot	2.85	0.00	significant
Shooting from high jumping	2.45	0.00	significant
Shooting from front falling	3.75	0.00	significant

Table (4-4): Shows significant differences between pre-test and post-test of control group

Tests	wilcoxon	Evidence	Type of evidence
Shooting from the pivot	2.71	0.00	significant
Shooting from high jumping	2.11	0.00	significant
Shooting from front falling	2.01	0.00	significant

Through the analysis of tables (4-3) and (4-4) we note that all the differences between the results of pre and post test of both groups are significant differences statistically t, because the level of significance where less than (0.05). For the purpose of identifying the evolution of the accuracy ratios shooting types the researcher used the ratios of evolution and the table (4-5) shows that.

Table (4-5): shows the evolution Ratios of the accuracy of shooting types

Shooting types	evolution rate of experimental group	evolution rate of control group
Shooting from the pivot	51%	22%
Shooting from high jumping	66%	5%
Shooting from front falling	70%	20%

For the purpose of verification of second hypothesis the researcher tested the differences between the experimental and control groups results by using the Mann-Whitney test (Table 4-6) shows that.

Table (4-6): shows significant differences between experimental and control group in the post-test of shooting types results

Tests	Mann- Whitney	Evidence	Type of evidence
Shooting from the pivot	2.50	0.00	significant
Shooting from high jumping	2.94	0.00	significant
Shooting from front falling	2.77	0.00	significant

Through the analysis (Table 4-6) we note that all the values of the differences in post-test between experimental and control group are significant, because the level of significance values are less than (0.05).

Through the analysis of tables (4-3) and (4-4) the researcher noted significant differences between pre and post tests and for post-test in both .The researcher attribute this to the moral influence of the teaching curriculum which was applied to the experimental group as well as to the coach curriculum which was applied by the control group, where both of which contains a variety of exercises, effective and sufficient iterations to a state of moral development.

But through the analysis (Table 4-6) Note researcher there is a significant differences in post-test between the experimental and control groups in all results of shooting accuracy so the researcher attribute these findings to depend on error measures in the construction and modification the teaching curriculum used by the experimental group by the results of the tests weekly, and that has been utilized by extracting error measures for the performance of every member of the experimental group, which has allowed us the Absolute error to identify continuing on the amount of errors in the accuracy of performance, through which researcher were able determine the size of redundancy required in each exercise, as well as determine at any stage of the learning was where these learners.

while the constant error has take advantage of it by selecting the direction of error in the accuracy of performance, thus enabling researcher to determine the causes of the error that occurs in the performance of the players, for example, that the discovery of the largest Percent of duplicates players to types of shooting moving to the upper body through the results of constant error, it is a pointer to the lack of correct guidance through the work of the wrist in the arm efforts, and so emphasis is on the players to modify the motor program.

The variable error, it refers to a state of stability in response of shooting types as the lack of error value differential positive case refers to the development of the players and the not need more occurrences and vice versa, in terms of increasing its value indicate that the responses player mixed results through proximity and then and direction of the target so you must make the necessary adjustments to the curriculum to overcome this problem.

4. Conclusion

Through analysis and discussion of the results the researcher concluded a set of conclusions was the most important of the following. The proposed teaching curriculum a positive effect on the evelopment of accuracy shooting types. For the adoption of error measures as an indicator to modify the curriculum and building a positive effect on the results of these curriculums. Use the absolute error to reach a level of shooting performance.

Use a constant error to find the underlying causes of errors associated with performance shooting types in handball. The possibility using variable error as an indicator to identify the real kinetic stability of shooting response on handball. Through previous conclusions researcher recommends the following. The adoption of the proposed curriculum in the development of some shooting types in handball. The adoption of error measures in the construction of teaching curriculum in handball games and another team games at least Use the absolute error in assessing the learning of shooting types in handball. Use a constant error to find the underlying causes of errors associated with the performance of shooting types in handball. Use a variable error as an indicator to identify the kinetic stability of the response shooting types in handball.

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