A comparative study of movement of sword fencing stabbed, according to the technical programming in the game of fencing wheelchairs class B

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Article Info

Received: March 13, 2018
Accepted: 2 April, 2018
Published online: Jun 1, 2018

Abstract:

Expert systems are essential for the development of the educational and training process, which helps in the development of many training requirements, as it depends on mathematical analysis to solve a problem. Therefore, the use of technical programming to study the comparison between the Iraqi and foreign model to reach the important differences in the development of motor performance. The researchers used the technical programming in the comparative descriptive approach to suit the nature of the research procedures, and the researchers found that there are significant differences between the Iraqi and foreign model in the rotation angle variable and the quantitative speed.

Keywords: Sword fencing, technical programming, fencing and wheelchairs.

1- Introduction:

The scientific development has added a lot of modern means. Trainers can benefit from them in order to prepare the areas of expertise for the players to reach the upper levels. Therefore, the postmodern era we are living in now has many characteristics, including the information revolution, the cognitive explosion, the rapid pace and the shift from material investment to intellectual investment. And other transformations, contemporary international experience has shown that evolution is based on training, and that it is the essence of global competition.

Computer expert systems are an essential necessity for developing the training process in the light of modern innovations. It takes into account the individual differences by presenting and analyzing the performance. It provides all the necessary information about the skill performance, which may help to develop many training requirements. Expert systems "are very advanced systems that use expert human methods and are integrated with the characteristics of the smart machine using logic and mathematical analysis to solve a problem, or perform an important task, as if the program used for that purpose is expert in its work.(1)

The game of wheelchair fencing as one of the individual games for handicapped people with motor disabilities that require speed and accuracy in performance is working to take advantage of all the findings of modern science to face the problems encountered by training to prepare players able to adapt to the changes of the era and deal with the problems and achievements, Fencing on wheelchairs The speed of the attack towards the opponent, and suddenly, and precision in directing the fly weapon to the target of the competitor for the purpose of getting touch, so the computer was introduced in the smart software in what is known as expert systems and programming skill performance, New concepts calling for increased reliance on computer techniques in training. The importance of research in the performance of professional skills according to the system of the expert, which may have a positive impact and experience in the performance of the movement of the challenge on the wheelchair fencing, which may improve the level of performance and achievement, so There was a need for a study in this area. One of the reasons why we make expert systems is to "preserve knowledge from extinction or extinction," meaning the unique value knowledge that exists only when a person is a distinguished expert in his specialty.(2)

The skill performance in the game of dueling on wheelchairs depends on the application of the technical aspects in an integrated manner. Some of our trainers may miss the fact that their dependence on the identification of errors on self-observation or non-technical observation and self-evaluation, which is flawed due to speed of movement and variable variability and difficulty of compatibility, On the progress made in the means of scientific observation and reliance on objective judgment, the researchers found the need for diagnosis of errors and evaluation of the technical performance in the movement to challenge the reliance or use of the program designed to program the performance of the skill, giving the program full visibility What must be achieved performance conditions that may directly affect the achievement of the best level of performance and then achieve a good achievement. The aim of the study is to build a Java programming system for programming the skilled performance of the B-class wheel-drive challenge. And compare the performance of the players in the final of the Rio de Janeiro Games for the handicapped according to the technical programming of the movement of the challenge of the game on the wheelchair B class B. The researchers hypothesized that there were significant differences between the players and the winning player. (3)

2-Methodolgy:

The researchers used the descriptive approach in the style of comparative studies to suit the nature and problem of the study.

2-1 Society and sample research:

The sample of the research was the number of attempts from the original search community by lot and by (10) attempts for each player, thus the sample of the attempts (20).

2-2 Methods, tools and devices used in the research:

- Arab and foreign sources.

- Advisor system (will be detailed later).
- Note.
- Laptop Calculator Number (1) Type (hp)
- Manual calculator of type (CASIO).
- Software and applications used in computer for motor analysis.
- Video camera type (Sony) to shoot the game.

2-3 Field research procedures:

The researchers analyzed the performance of the players and after analyzing the imaging, the search variables were extracted, namely the angular velocity, quantitative velocity, kinetic energy and velocity, under study and performance comparison between the players. For the purpose of extracting the investigated variables and their use in building a software system designed by the researchers as a performance model. After analyzing the skill performance and data acquisition, the data were processed statistically "to obtain the results.

2-4 Statistical procedure:

The researchers processed the results of the tests by the appropriate statistical means through the statistical program (SPSS), which includes the following approved laws:

- The arithmetic mean.
- Standard deviation.
- (t) For independent samples.

3- Results:

3-1 Presentation and analysis of the results of the comparison of the skillful performance of the wheelchair challenge and discussion on wheelchairs:

Table (1). Shows the computation of the computational circles, the standard deviations, the calculated value (T), and the statistical significance between the two research groups

Variables	Iraqi Model		Foreign model		(t) Calculate	Level of significance	Significance type
	Mean	STD.EV	Mean	STD.EV			
Rotation Angular	73.96	11.89	90.27	3.12	4.19	0.00	Sig.
Angular velocity	72.59	32.97	45.88	30.94	1.86	0.07	Non Sig
Velocity	365.45	161.48	216.78	1.3.84	2.44	0.02	Sig.
Kinetic energy	3.153	1.61	4.59	2.09	1.72	0.1	Non Sig.

The results showed that there was a significant difference in the Rotation Angularity and Velocity variance. The researchers attributed the difference to the difference in muscle strength between the players according to their medical classification to include the back muscles, which

affected the tilt of the trunk in front, which occurs at the moment of appeal and the greater the player made a longer time in the quick return to the back, as confirmed by (Abdel Hadi Hamid and Abdul Karim Fadel) as "a mistake T-player in the movement of appeal is committed by: Mel trunk forward hindering the rapid return.[4] As well as to make the body of the player as a target close to the rival, which limits the achievement of the extent of the wider movement of the trunk and arm during the process of the challenge of the highest possible speed, which gives a mechanical advantage of the attack process carried out by the player as "muscle increases working in the joints to produce the largest speed Angle it, and move this speed into the armed arm at the moment of appeal.[5]

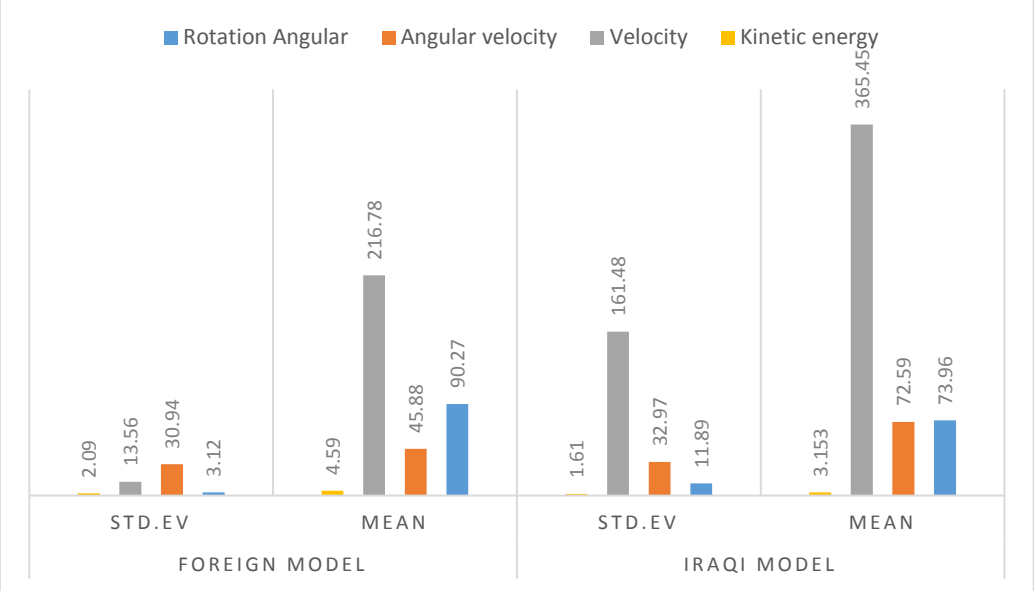

Figure (1) Show the mean and STD.EV. To the Iraqi model and foreign model

The researchers also found that there were no differences in computational and standard deviations. In order to identify the differences, the researchers used the T test for independent samples. The results showed no significant difference in Angular velocity, Kinetic energy. The ideal performance of the players in the development of the body during the stages of movement and the continuation of the acceleration process to the moment of appeal, which is the most important and fastest movement by which the player to get a touch, "as well as speed and compatibility, which ends by pressing the weapon fly on the goal of the competitor,[6] In addition, the performance of the two players was consistent with the correct mechanical performance in terms of position of the trunk and the flow of the movement and the follow-up of the armed arm to the last moment, and each contribution made an active contribution in the regulation of the motor between the nervous and musculoskeletal systems. The locomotive towards a particular target. [7]

4- Conclusions:

The study showed that there are significant differences of statistical significance according to the skill programming system between the two groups in Rotation Angular and Velocity variables and in favor of the foreign model.

- The study showed no significant differences of statistical significance according to the skill programming system between the two groups in Angular velocity, Kinetic energy variables.

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