



Faculty of physical education for men's
Department of theories and applications
Of team and tennis sports

Modern technology to evaluate the performance level at volleyball matches using computer software

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By

Mohammed Abd Elshafy Mohammed Ahmed

Assistant Lecture In Department of theories and applications
of team and tennis sports in Faculty of physical
Education for men's Benha University

Supervised By

Prof.dr

Mohammed Mohammed Refaat

The professor of volleyball and Vice Dean for
Graduate Studies and Research, in
Faculty of Physical Education,
Benha University

Prof.dr

Ghada Mohammed Amer

Assistant Professor and Head of Department
Electrical Engineering, in
Faculty of Engineering
Benha University

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Summary

- research Introduction :

The scientific and technological progress which the world is witnessing is dictated on the UN and many duties, and paid to the initiative and use the maximum that can be made available styles of contemporary technology and thus the development of methods of education and training, so get rid of systems traditional stereotypes in order to keep abreast of developments and keep pace with the spirit of the times "the era of technological development."

This was reflected scientific and technological progress on all areas in general and in the field of physical education in particular, and it became clear that progress in training operations, as scientists have a new sports training research contributed greatly to the development of various sporting activities.

According to the Wafeka Mustafa Salem (2001 m) to the computer of the most important and most accurate technological devices that noted with interest the specialists in many areas, it is also the devices used for the analysis, display and transfer of information in various forms in addition to it saves time and effort.

-Research problem:

The volleyball of group activities, which is characterized by the diversity of skills, which are formulated in the form of mixed variety of plans, which it calls the shapes tactical, which aims to link or integrate motor skills in volleyball, so as to achieve the best results and reach the levels of developed and won championships.

It is noteworthy Ibanez et all (2003 m) that during training or competition is trained to make decisions tactical and technical depending on their intuition and experience without the support of objective data For this reason it is important to develop recording and analysis and quantitative assessment therefore clear to us the role of the use of computers in it.

The computer is one of the best and the fastest and most accurate scientific methods used to assess the performance of the players in the games, it is considered one of the methods developed that can be relied upon to assess the performance of the players on the field through the analysis of data results of the actual performance and then build a training program and the development of ways to play the appropriate team.

The technology includes computer systems analysis and design, software production, and the production of information in a way that is clear and understandable, and collecting information and encrypt and others. While the field includes remote communication satellite technology and IT and other dial

And confirms zaidi. SM (2007 m) that scientists and researchers fully convinced of the extent of the effectiveness of the computer and its ability to store and retrieve information when you need it, and what it takes to work evaluation and classification of data and individuals.

The coach always wanted to gather information to help him to know and follow the implementation of the players of the plans used and the level of proficiency of the skills so the focus is on training later on the strengths and weaknesses addition, it also needs to collect information about the difference competition even follows the development of any plans or skills both in defense or attack.

The researcher believes that it can be for the coach to get the data evaluation process for his team between halves of the game or during times withheld, because of computer programs (software) that can help the coach to evaluate games for his team or the opposing team to find out the strengths and weaknesses and try to overcome them during the game or during the competitive season.

The most coaches had to have a tool or means in the process of rapid exploration and analysis of the game inside the stadium and help them choose the right decision and the actual help the team win.

It already has noted researcher through the exercise of the game of volleyball as a player, as well as through his teaching the practical side of the sport of volleyball through his work demonstrator and teacher assistant college that the use of computers is considered as a means of modern technologies that lead to facilitate the collection of information and the possibility of storing and classifying and retrieved at any time, which called for a researcher to conduct this study and try to identify You could design an integrated computer program to assess the level of performance in volleyball games?

-The importance of research:

- Lacks the analytical process handwork to what Pforia called feedback information during the game, and in order to be knowledge and speed of access to this information must use the appropriate means to this
- The importance of this research lies in the use of computers in the program is designed to analyze and evaluate the performance skill and tactical during the game or after the end of the tournament and to the enjoyment of computer output reports quickly compared to the analysis of the handwork
- This program is designed and proposed means or method in the selection of players systems in the light of their findings in the first half to modify the path of the other rounds of the game.
- Identify the reasons for victory and defeat in the games through the results of the analysis of skill and tactical

- Research Aim:

- This research aims to design an integrated software program to assess the level of performance in volleyball matches.

-Research questions:

- You could design an integrated software program to assess the level of performance skill and tactical (individual and collective) in the volleyball games?
- What are the results of the performance evaluation of the level of skill and tactical volleyball matches using a computer program?

-Search procedures:

-Research Methodology

The researcher used the experimental approach when designing a computer program and descriptive method when evaluating volleyball matches.

-Sample :

The sample included (10) matches as follows :

-Exploratory sample

The number (6) games they play (Egypt - Cameroon), (Tunisia - Rwanda), (Morocco - Tunisia), (Egypt - Nigeria), (Morocco - Cameroon), (Egypt – Tunisia)

-Basic sample

The research sample included basic (4) matches at the Olympic Games London 2012 and was chosen as the research sample in a deliberate manner they games (Italy - America), (Bulgaria - Italy), (Russia - Brazil), (Egypt - Brazil)

-Methods and tools of data collection

-camera tapes / computer / TV Card / analysis of documents and forms / References / Note substantive interview / expert opinion

-The exploratory studies

1- The first exploratory study:

This study aims to identify new performance-related variables Skill and tactical, which may show through scientific observation for reconnaissance and design games for observation forms manually with all the variables of performance skills and tactical received the survey reference in volleyball..

2- The second exploratory study:

This study aims to test and modify various reports designed by the researcher, which will serve as the output of a computer program which contains the levels of effective performance variables skill and tactical that have been monitored during the games reconnaissance was the experience of these reports (forms) analysis manual to find out what the errors to try to avoid and determine the degree to levels of effectiveness of performance variables skill and tactical in volleyball.

-Build and implement a computer program:

- planning to build the program:

The researchers have made flow chart of the contents of A computer software.

-Select program language:

The researcher used the visual basic language and some other programs such as: Microsoft Access. / Microsoft Crystal Report 4.6 / Microsoft Excel / setup Factory.

-Designing Program :

Through the study of researcher Academy (AGC Academy) to study the integrated program for professional engineering software industry and designing programming web pages, the researcher designed a computer program, the design process has gone through several stages:
1- Data Collection and select relation of data .

- 2- Designing Database.
- 3- Programming Software.
- 4- Trial Software.
- 5- Program Fixation.

-The program validity:

The researcher used content validity to make sure that the Windows screen analysis contains all the offensive performance variables and aims of the analysis.

The researcher also using honesty Allazemy, which represents the relationship between the assessment of the results of the program designer and test TOPICAL Outdoor is to use the results of the analysis of performance skills form and handwork are compared to the results of the analysis program designed results of the analysis of performance skill handwork.

- The stability of the program:

The researcher finding a stable note on the game established between panels (Egypt - Tunisia) role final championship African Nations in Cairo 2005, where the researcher assess the performance of the Egyptian team in order to find a reliability coefficient, the researcher used the method of application and re-application Test-Retest interval of a week in order to calculate reliability coefficient, the transaction was carried out calculations for the stability of the effectiveness of performance skill and tactical results confirm the stability was observed in the data entry IAS For Volleyball program and the power used to assess the level of performance skill and tactical in volleyball.

- Main Study

The researcher performance evaluation (skills - tactical) to volleyball games using a computer program IAS For Volleyball for basic research sample matches of the Olympic Games to London in 2012 and in the period from 12/25/2012 to 05/02/2013 m were obtained on the results of the evaluation process.

-Statistics:

Percentage

Means

Person Correlation

Standard Deviation

T.Test

Efficiency

-Conclusions:

In the light of the objectives of the research, and his questions at the same limits and procedures of this research through presentation and discussion of the possible results of the researcher concluded the following:

- 1 - software features instant the access to information.
- 2 - designed program is easy to use with little training can recognize the coach on all windows functions and how to use them.
- 3 - can be through a computer program designed to identify the level of performance (skill, tactical) during the matches.
- 4 - a computer program designer is characterized by honesty and consistency.
- 5 - software features make all statistical specified transactions during the match.
- 6 - characterized windows screen quickly registration process analysis consistent with the speed events of the match and rhythm.
- 7 - recorded data during the evaluation process remains reserved aperiod in order to avoid power outages.
- 8 - a computer program features the possibility of collecting the current report of the match with the game or previous games.
- 9 - statistical reports can be printed resulting from the performance assessment process (skills, tactical) at any time of the game.
- 10 - featuring software outlet (chart) for each of the statistical reports generated from the performance appraisal process.

Recommendations:

Based on the results reached by the researcher through the conduct of this research, the researcher recommends the following:

- 1 - the need for hiring coaches volleyball computer program designer, whether in training or in the period of the competition because of its effectiveness in guiding the training or the game to improve the level of performance skill and tactical.
- 2 - the need for universal use this program to all clubs and national teams Egyptian property because of its speed of analysis of the games, due to immediate access to data associated with performance skill and tactical whether the player or the team or teams competing in the tournament.
- 3 - need the attention of sports colleges of education to train students on the use of such modern software to assess the level of performance in volleyball.
- 4 - further studies serve the field of training in volleyball CNC.
- 5 - conducting similar studies to evaluate the games in team sports.
- 6 - The need attention of the Egyptian volleyball such programs to develop and refine the trainers volleyball, and providing them with the latest software programs that benefit them assess the level of performance in training or a match in order to improve the sport of volleyball Egyptian and access to the best levels of top sports.
- 7 - the establishment of laboratories for assessing the level of performance using computer programs in all sports faculties of Physical Education.
