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Theories and applications of Gymnas
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The use of three-dimensional models for some
qualitative exercises and their effect on improving the
performance of some motor skills in the aerobics
gymnastics

Within the requirements for obtaining a Ph.D
in physical education

prepared by

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1/1 Introduction

The development of skillful performance has become an area of competition between all sectors of society to reach the individual to the highest possible level possible by the potential and energies of people in general and the individual sports in particular.

And reach the top of high levels of sports can only come through the mastery and the installation of motor skills and sports development level of performance, we find that the developed countries mathematically take care of the physical and skill development to the utmost importance, and the monitoring of enormous material and technological potential to reach this, believing in the value of sport As a cultural phenomenon that reflects the progress and progress that has reached it, and the impact of its impact on the achievements of the victories in various local and international forums.

Gymnastics is one of the most important sports on which Egypt has built a great hope of winning the medal of Olympia or the world. The last Olympic medal for Egypt was obtained by Mohammed Rashwan in the Los Angeles Olympics in 1984. The analysis is a tool to deal with all tasks related to performance Mahari, where this analysis depends on the foundations and rules to enter the depth of human performance and disclosure of secrets through the testimonies of many of the sciences associated with the human, and the most important statements concerning the anatomical foundations and movements of the basic parts of the body and methods of their contribution to increase the effectiveness of performance under the environment Mick Anique is governed by many laws (123: 16(

Mohammed Ibrahim Shehata sees movement as one of the basic aspects of human life and its interaction with the surrounding environment. . . But in the field of sports activity takes a completely different form where the movement in the field of sports or motor skill.

Each movement or rotation of the whole body or one of its parts for a limited distance and at a specific time and rhythm of its own, and then evolve and grow and develop human movements from the concept of the original movements in childhood to the concept of sports skills with progress in the field of sports. (25: 51(

Search problem

The arsenal of digital educational technology tools is not limited to one of the common methods, but includes many tools such as computers, portable tablets, audio, video, multimedia tools and application software. (Eg text, graphics, audio, video, 3D models, interactive mental maps). The vast majority of previous studies that proposed virtual learning environments have used side-by-side image, sound, text and graphics electronically supported with live presentations, The text may be in

written or sound form, while their images may be static or animated. However, few studies included 3D forms or models, due to the fact that the use of 3D models or models requires high skills in terms of model design, programming science, and a detailed understanding of the subject so that educational content can be developed. (43) (44)

The researcher noted through his experience as a researcher in the field of aerobics gymnastics and that this type of gymnastics modern accreditation of the Egyptian Gymnastics Association and through the researcher acquainted with many of the specialized references and previous scientific studies as well as the International Information Network (Internet) and to the knowledge of the researcher that this study did not address it One before in aerobics gymnastics.

He realized that players should have full knowledge of all the requirements of simple or composite motor skills, whether advanced or advanced, for the use and use of modern technology and the three-dimensional models, measuring their use to learn skills and upgrading the physical and skill level of aerobic gymnastics.

The importance and need of research:

Scientific importance:

- Try to design a number of specific exercises which in turn increase the level of skill performance of aerobic gymnastics
- Characterize some of the skills that can benefit the operators of the training process.
- Use the program and try to apply it to the youth stage.

Practical importance:

- Develop the level of skill and physical performance of elective skills for the stage under 11 years of girls under consideration
- Strengthening the working muscles.
- To contribute to improving the level of players' results.

Objectives:

The research aims to:

- To study the effect of qualitative exercises on improving the level of skills under study for the "aerobics gymnastics" for the age group under 11 years.
- Study of the effect of the specific exercises on improving the level of special physical abilities under consideration for the "aerobics gymnastics" for the age group under 11 years.

Research hypotheses:

The researcher assumes:

There are statistically significant differences between the pre-measurement and the telemetry of the experimental and control sample in favor of the experimental group.

٢/٥/١ There are statistically significant differences between the pre-measurement and the post-measurement of the (physical) capacities of the experimental and control sample for the benefit of the experimental measurement of the experimental group.

search procedures

Research Methodology:

The researcher used the experimental method to suit the type and nature of this research through experimental design of the experimental group using tribal measurement and telemetry in order to identify the impact of the training program on some physical and skill variables and the level of performance of aerobic gymnastics.

Sample Research

The researcher selected the sample of the research in a deliberate manner from the aerobics gymnasts under 11 years in the club (Nubian General Ismaili) Branch of Banha (Kaliobia) and (Sudanese Federation Club) for the sports season 2018/2019 and registered with the Egyptian Federation of gymnastics.

The sample strength was (19) (14) for the player and the researcher conducted tribal and remote measurements on them, in addition to the sample of exploratory studies and the number of (5) women from the same research community) and outside the basic research sample.

Discussion of results:

In light of the objectives of the research and its limitations and the limits of the selected research sample and its characteristics and the researcher's findings guided by scientific references and previous studies, the researcher discussed the results obtained to verify the validity of research hypotheses.

To verify the validity of the first requirement, which states:

There are statistically significant differences between the pre-measurement and post-measurement of the (skill) capabilities of the experimental and control sample for the experimental group.

The results of Table (X) indicate that there are statistically significant differences between the two dimensional measures of the experimental and control groups (skill level) of the skills in question for the experimental group.

There are also differences in the rates of improvement between the two post-measurement averages (skill level) of the experimental and control groups for the skills in question for the experimental group.

Where the skill (T TURN TUCK JUMP TO SPLIT) came first in terms of improvement with an improvement rate (27.70%), (2/1 TURNS TO VERTICAL SPLIT) came second with an improvement rate of 18.751%

The researcher explains the reason for these differences to the positive impact of the educational program of the three-dimensional educational models, which helped to provide a new learning environment for the players through the computer, including the variety of visual and audio stimuli and theoretical frames and images and three-dimensional educational video, which shows the typical performance of the skills in question, and Explain the stages of skills and information related to skill and coupled with the stages of performance of each skill led to the correlation between the information provided and the performance method and technical points of skill, and provide a stereoscopic vision of the educational models of three-dimensional and Tracking the performance of different parts of the body in the performance of the skill in each of the models of the tutorial helped clarify the technical points and educational steps of the skill and provide feedback for proper performance, which helps in the diagnosis of performance and treatment through the process of evaluation, and provide a set of practical exercises that reach the players To proper performance.

The results of these results are consistent with the study of Ahmad Al-Bahlul Attia Al-Alous (2018), Ahmed Amin Lotfi (2018), Adelah Shams El-Din (2018), Ahmed Hijazi Mustafa El-Circassy (2016), Rachel Mintz and Shailitvak (2001) Provides students with many unique opportunities to experience and discover things and phenomena that can not be observed, which helps in learning what is difficult to learn by traditional means and makes learning more credible and motivates students to learn and absorb the scientific material better when compared to the scientific material provided in any other form.

Ahmed Talha Hussein Mahmoud 2016 points out that the different educational models of sports and motor skills can be designed and used in the education process. This can not only be achieved, but educational models designed to develop multiple educational and training aspects (skills, plans, knowledge) , Mental and psychological

Thus, the first hypothesis is achieved, which provides for statistically significant differences between the tribal measurement and the telemetry of the experimental and control sample in favor of the experimental group.

5/0 Conclusions and Recommendations:

5.1 Extracts:

In light of the research objectives and hypotheses and within the sample of the research and based on the statistical treatments and the results indicated, the following conclusions were drawn:

There are statistically significant differences between the two measures of physical dimension in favor of the experimental group.

There was a statistical difference between the two intermediate measures in the skill side for the experimental group where the skill (___) came first in terms of improvement with an improvement rate (27.70%) and came second (18.751%)

3-dimensional educational models have a positive impact on the enhancement of learning outcomes in learning and performing physical and skill exercises for experimental group players.

4 - The method followed (verbal explanation and performance of the practical model) has a positive impact on the promotion of learning outcomes in learning and performing the exercises of quality and skill of the experimental group players.

5.2 Recommendations

1 - Use of 3D educational models of the skills under study in the education and training of young adults and aerobics gymnasts.

2 - The need to pay attention to the design of three-dimensional educational models in the teaching of aerobics gymnastics within the clubs of the Arab Republic of Egypt.

3 - Instructing trainers working in training aerobics gymnastics to know the importance of using 3D models to improve the physical and skill aspects of players and players.

4 - The need to pay attention to the design of three-dimensional educational models in the various motor skills of aerobics gymnastics in cooperation with experts and specialists in the technology of education.

5 - directing the consideration of researchers in the field of aerobics aerobics to conduct scientific research similar to the various skills.

6 - The need for training courses to train trainers aerobics and their assistants on how to take advantage of modern technology in the formulation of their decisions to keep up with the modern development in the educational process.

7- Conducting similar studies using new innovative methods on the rest of the dental stages for participants in aerobic gymnastics.