

(Abstract)

The impact of exercises according to the most important variables biomechanic in the students learning to the movements of compound attack with a weapon foil

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The fencing sport is one of the sports that requires a comprehensive numbers of all aspects of physical, psychological , tactical, technical, etc and in nature it depends on the different sciences as the science of movement, the sports training, biomechanic , psychology and other sciences.

The researcher has informed on a number of researches and previous studies, as well as follow-up to the seriousness of the educational process For students of the third stage in the Faculty of Physical Education at the University of Babylon, he noticed that there is a problem lies in the weakness of the students learning of the movements compound attack and its, performance due to the difficult resulted from the focus on the physical aspects and neglected the aspects mechanical task during the learning of these movements as well as the lack of real standards or biomechanic indicators the teacher depends on and not to build the educational systems according to the principles, conditions and mechanical principles as well as some teachers and coaches do not pay great attention to mechanical aspects during the preparation of exercises teaching, and this does not fit with the development obtained to the process of motor learning at the present time.

The aim of the research is to teach the movements of compound the attack (numerical and circular) to the students with weapon Foil correctly through:-

1 - Identify the most important variables biomeckanik that ibterested in the movements of the compound attack in Fencing

to the students of physical education.

2 - Preparation exercises according to the variables biomechanic (the model used) to learn the students the movement of compound attack with a weapon of Fencing foil.

3 - Understand the impact of placed exercises according to variables biomechanic in the students learning to the movements of compound attack with a weapon of fencing foil.

To achieve this The researcher assumed that the educational exercises have a positive effect in learning the movements of complex attack and also have a positive effect in improving the values of the most important variables biomechanic for students with a weapon foil.

The researcher used the experimental method (he designed equal groups, with the pre and post test) , and limited the research community with the third stage students in the Faculty of Physical Education - University of Babylon for the academic year (2011-2012), who are (103) students , who were chosen as the research sample randomly from the original research community the number (30) students, were divided into two groups experimental and control groups , and by (15) students in each group, and then analyzed their performance by extracting variables biomechanic using a video camera and the platform strength to diagnose the faults and treatment and it has been prepared learning exercises setting that to Learn the movements of compound attack and improve the values of variables biomechanic they have , and then carried out learning exercises on the experimental group over (6) weeks at a rate of a unit learning a week in the hall of fencing at the Faculty of Physical Education - University of Babylon, and post tests a were used proper statistical treatments to reach the results , and after viewing the results and have been analyzed and discussed, The researcher reached the following conclusions:-

1 – Tte experiemental group achieved a rate in learning better than the control group in testing the art performance level especially in the cirular attack.

2 - the educational exercises have a positive effect in improving the values of variables biomechanic examined, for the

movements the compound attack (numerical and circular) with a weapon foil.

Therefore, the researcher recommended the following:

- 1 - emphasis on the importance of using the dynamic analysis (biomechanic) to see the errors occurring in the motor tracks to the performance of technical skills in the sport of fencing.
- 2 - the focus on principles, conditions and mechanical principles in the design and building exercises in the curriculum according to the condition of motor performance of the skill to be taught.
- 3 - emphasis on the use of educational exercises prepared in accordance with the mechanical conditions for its positive role in improving the values of biomechanic variables of the body and thus improve performance.
- 4 - The necessity interest of Teachers, trainers and those in touch with the educational process and the rules of mechanical underpinnings and engaging sessions to make them know the importance of scientific biomechanic because of its large and active role in the detection of errors and weaknesses in the performance through the analysis of motor skills.