

DOI: <https://doi.org/10.54702/tefb1777>**Agility and accuracy and their relationship to the level of skill performance sword weapon in fencing**Ghosun Khalaf Aziz¹✉, Ishraq Ghaleb Odeh²✉

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Abstract

The sport of fencing requires speed in kinetic performance on the court and continuous movement between advance, retreat, attack, and defense movements. Therefore, the player must have the ability to continue coordinated muscle work with complete compatibility between body movements and technical movements using the hand and leg constantly and an estimate of the distance of the fencing and the speed of the attack towards the opponent suddenly. With effort and muscular strength, it sets off in one go, at the highest speed and in the shortest time, to reach the opponent's legal goal by the closest and shortest path, with extreme precision, to score a touch. In order to reach advanced results in the sport of fencing for women, we, as workers in this sport, must stand at the basic determinants that are important in the sport of fencing, which every female player possesses, especially in weapon sword fencing, which can be developed according to the correct scientific foundations, so the two researchers decided, and through their follow-up For the sport of fencing and learning about what is new and modern in this ancient sport, highlighting some of the special abilities (such as agility and accuracy) that greatly influence the level of skill performance with the weapon sword fencing in particular and fencing in general, so the two researchers used the descriptive approach in order to suit it and the subject of the study. As for the research sample, it was female athletes. The College of Physical Education and Sports Sciences team for girls, numbering (16) players for the sports season (2023-2024). The most important conclusions were (the existence of a positive correlation between the characteristics of agility and accuracy and the level of skill performance in fencing with a sword). Among the most important recommendations that the researchers came out with was the need to pay attention to Trainers accept the abilities specific to fencing, especially the qualities of agility and accuracy, with the need to shed light on the level of skill performance in fencing, as it is the important focus in deciding the results of fights. For the benefit of the best fencer, it is also best to conduct similar studies on other kinetic qualities and abilities and for different age groups.

Keywords agility, accuracy, level of skill performance, weapon sword fencing**Introduction:**

Fencing is one of the sports that has received wide attention from specialists and researchers, as it is considered by many to be an interesting competitive sport with an ancient and honorable history, the history of our fathers and great-grandfathers. There are several points and specifics specific to this sport that play a major role in its development, including physical preparation, as physical preparation has received focus and attention. There is a great deal of comprehensive preparation in this sport, as it

requires fast and strong kinetic performance through the performance of the skills of attack, defense, advancement and retreat. A player who does not possess the special kinetic or physical abilities in the sport of fencing will not be able to master the technical and kinetic skills for any activity, so the need has arisen to raise the level of the players' abilities. The physical and kinetic skills necessary to master the skill and tactical abilities that contribute to achieving advanced achievement and achieving victory, as fencing requires speed in kinetic performance on the field

and continuous movement between advance and retreat and attack and defense movements. Therefore, the player must have the ability to continue coordinated muscular work with complete coordination between the movements. The body and artistic movements, using the hand and leg constantly, and estimating the distance of the fencing and the speed of the attack towards the opponent, and suddenly, with effort and muscular ability, launching all at once with the maximum speed and the shortest time to reach the opponent's legal goal from the closest and shortest path and with extreme accuracy to record a legal touch. Therefore, the fencing player must make good use of the movements of the legs and arms. In attack and defense, and coordinating with each other to integrate and execute movements of different types within one framework and in a manner consistent with skill performance, i.e. performing a number of movements at the same time, because fencing movements in general are characterized by a small and precise range of motion for performance. Hence the importance of research in identifying the relationship between agility, accuracy, and the level of skill performance in weapon sword fencing. The problem of the research lies in reaching advanced results in the sport of fencing for women. We, as workers in this sport, must stand at the basic determinants that are important in the sport of fencing and which it possesses. Every female player, especially in weapon sword fencing, which can be developed according to the correct scientific foundations. Therefore, the two researchers, through their follow-up of the sport of fencing and learning about what is new and modern in this ancient sport, decided to shed light on some special abilities such as agility and accuracy, which have a great influence on the level of skill performance in weapon sword fencing. In particular, and fencing in general, from knowing the relationship between agility, accuracy, and skill performance to raise the physical and skill level, which in turn is reflected in the level of performance of female players in fights, whether local or external. The research aims to identify the qualities of agility and accuracy among the players of the College of Physical Education and Sports Sciences team for girls in weapon sword fencing. In addition,

identifying the level of skill performance among the players of the College of Physical Education and Sports Sciences for girls in weapon sword fencing and knowing the relationship between agility and accuracy and the level of skill performance among the players of the College of Physical Education and Sports Sciences for girls in weapon sword fencing. As for the research hypotheses, it is the existence of a statistical correlation between agility, accuracy and level the skill performance of the players of the College of Physical Education and Sports Sciences girls' team in weapon sword fencing. The areas of research were the human field: the players of the College of Physical Education and Sports Sciences girls' team, who numbered (16) players. The temporal field: for the period from (10/11/2023) to (12 /12/2023), Spatial area: Fencing Hall at the College of Physical Education and Sports Sciences for Girls, located in the city of Baghdad, Al-Waziriya area.

Procedure method:

The appropriate method is considered one of the most important steps that lead to the success of the research (Wajih Mahjoub), as the method depends on the nature of the problem and the goal to be achieved (8). Therefore, the two researchers used the descriptive method in the correlational study (Khair al-Din Owais), which aims to determine the degree of relationship between two variables or more. (5)

Research sample:

The sample is the model on which the researcher conducts his entire work (Laila Khalil), as the sample was chosen intentionally in order to achieve the goals that the two researchers seek to achieve (6). The sample was from the players of the College of Physical Education and Sports Sciences girls' weapon sword fencing team, which numbered in number. (16) female players for the sports season (2023-2024), as two female players were excluded for the purpose of conducting the exploratory experiment. Thus, the number of female players for conducting the main experiment is (14) female players. For the purpose of ensuring the homogeneity of the research sample, the skewness factor was used among the members of the research sample in the variables

(height, Weight, chronological age, and training age) as shown in Table (1).

Table .1 shows the homogeneity of the research sample by the skewness factor in the variables of height, weight, chronological age, and training age.

Variables	Mean	Std. Deviations	Median	Skewness
Length	161,4	3,1	162	-0,66
the weight	62,1	3,2	64	- 0,98
Chronological age	22,6	0,82	23	-0,35
Training age	2,95	0,68	3	0,6

Methods used in the research experiment:

(Arab and foreign sources, official websites on the International Information Network (the Internet), observation and experimentation, measurements and tests, a form assessing the level of skill performance (see appendix (1))

Used devices and tools:

(Video camera (1), fencing weapon (16), medical scale (1), chalk, chair, stopwatch, fencing field, blackboard, adhesive tape)

Tests used in the research:

Agility test: (Abdul Hadi Hamid Al-Tamimi)

(4)

- Test name: Advance and retreat within the shortest possible time.
- Purpose of the test: to measure agility.
- Tools: tape measure and stopwatch.
- Description of the performance: The athlete stands on the starting line, and upon the signal to start, the stopwatch begins to run. The athlete makes a normal advance from point (A) to point (C), then a normal retreat from (C) to (B), then a normal advance from (B) to (B). E) Then it regresses from (E) to (C), then a normal advance from (C) to (G), then a normal regress from (G) to (A), after which the stopwatch stops working and we record the attempt in the second (sec). (3)

Accuracy test: (Munir Yaqoub) (2)

- Purpose of the test: measure stabbing accuracy.
- Tools used in the test: a fencing board on which are drawn six circles with a diameter of

(5) cm from (1-6) in an irregular shape and at a height appropriate to the player's height.

- Test procedures:
 - The player stands in a ready position, holding the weapon, and at an appropriate distance from the sign.
 - After hearing the signal from the tester, the player performs the stabbing motion in the circle whose number is mentioned by the arbitrator.
 - The player is given (10) attempts to challenge.
- - Recording: The player records the number of times the target was accurately hit from the ten stabbing attempts made by the player.
- The test is repeated twice, and the best attempt is recorded.

Exploratory experience:

Before starting the field or main experiment, it is necessary to carry out the exploratory experiment on a sample from outside the main research sample. Here, the exploratory experiment was on a sample of four female students in the fourth stage who practice fencing, as it was on (20/11/2023) at exactly (Half past nine in the morning and its purpose was:

- Identify the obstacles facing the two researchers during the main experiment
- Ensure the validity of the tools used
- Know the time of each test, in addition to the total time of the test
- Ensuring the efficiency of the assistant work team

Main experience:

The two researchers carried out the tests for the research on Tuesday at (9) in the morning on (11/27/2023), as they began applying the agility test first and then the accuracy test in the fencing hall of the College of Physical Education and Sports Sciences for Girls, University of Baghdad, taking into account all appropriate conditions for carrying out the tests.

Evaluating the level of skill performance with weapon sword fencing:

Three arbitrators evaluated the level of skill performance with weapon sword fencing by placing a score out of (10) and taking the arithmetic mean of their scores. The level of performance was evaluated by videotaping and presenting it to (3) arbiters and each skill was evaluated. According to a special form prepared for this purpose in Appendix (1), which includes

evaluating the level of skill performance through the player's knowledge of his skill and physical level and achievement by dividing the judges' score according to the nature of the movement performance in terms of its flow, compatibility, speed, timing and accuracy of the performance.

- Go forward three steps and return three steps by jumping
- The decisive attack
- Diagonal defense

Statistical methods:

The search data was processed through the Statistical Package for the Social Sciences (SPSS).

Results:**Presenting and discussing the results of the relationship of agility to the level of skill performance**

Table .2 shows the relationship of agility and the level of skill performance with weapon sword fencing

Variables	Mean	Std. Deviations	Correlation coefficient	Level sig	Type sig
Agility/sec	25	4,813	—	—	—
The decisive attack / minute	5,81	1,42	0,76	0,001	Sig
Diagonal defense/ minute	6,04	1,097	0,78	0,003	Sig
Go forward and back 3 steps	6.6	1,234	0,841	0,000	Sig

Presenting and discussing the results of the relationship between accuracy and the level of skill performance in sword weapon fencing:

Table .3 shows the relationship of accuracy and level of skill performance with sword weapon fencing

Variables	Mean	Std. Deviations	Correlation coefficient	Level sig	Type sig
Agility/sec	6,71	1,076	—	—	—
The decisive attack / minute	5,81	1,042	0,647	0,000	Sig
Diagonal defense/ minute	6,04	1,097	0,673	0,002	Sig
Go forward and back 3 steps	6,64	1,234	0,697	0,001	Sig

Discussion:

After presenting the results of the tests, the two researchers see that the cases and situations facing the player during fights and competitions, which require speed of performance and agility, and for a long period of time, the player is exposed to taking many skills, and this is reflected in her final decisions, which in turn decide the outcome of the fight, whether for her or against her, and this is sufficient to acquire The player has the ability to change the positions of the body as a whole or part of it, and perhaps change the direction of the body to achieve his touch. Fencing requires lightness, fluidity, and a high ability to perform this and reach the level of achievement required. Muhammad Subhi Hassanein points out that agility is an important factor in performing all sporting activities, as it is the ability to change the positions of the body, whether on the ground or in the air, to achieve victory (1). It contributes greatly to the speed of learning and mastering offensive and defensive skills and all other skills in this sport. Fencing depends on changing body movements from attack to defense or from advance to retreat at a speed that does not enable the competitor to score a touch on the player, as well known by both (Nawal Mahdi Al-Obaidi & Fatima Abdel Maleh). As “the ability to quickly control the performance of a new movement and to quickly and correctly modify and control kinetic work” (7). As for accuracy, it is one of the physical qualities that the sport of fencing needs, and this is what Amr Al-Sukari pointed out, stating that fencing requires accuracy essentially in most of its movements and skills, as accuracy plays a major role in this sport, as it is the ability and control to direct the blade’s fly towards the specific target (3). It relies primarily on high mental abilities and good, quick and precise physical behavior that guarantees victory, and this is what appears clear in the skillful performance of attack and defense. Offensive skills are complementary to defensive skills through proficiency in defending the target area, which is followed by a direct response to the opponent’s attack to nullify it and complete the attack cycle. and scoring touches in competition. The fencing player must be accurate in all playing skills, including attack and defense. This is done using precision, which is a decisive factor in performing

attack and defense movements in various situations and directions, as accuracy must include the movements of the legs and the armed arm, all of which are directed towards the opponent’s goal in the shortest possible time. In order to surprise the opponent, score a touch, and win the fight

The study (Al-Selmi et al.) indicated, “The results showed clear development in their physical tests with the exercises conducted by the researchers, and the results showed clear development for this group in the distinctive tests” and according to speed, (9), and the study (Al-Selmi, A.-S.) confirmed, “The researchers attribute the development as a result of using Exercises in the continuous training method” (10)

The study of (Al-Selmi, A. D. H et al.) indicated, “(Exercises based on training foundations such as (hitt) exercises) and acquired lead to the basic purpose of the research” (11)

The study (Kzar et al.) explained (the practical part of this study was (20) minutes long. This part included practical applications of skill exercises and metacognitive exercises for applied exercises used in the educational curriculum for performance, which had an effective role among the members of the experimental group, and this is consistent with in the current study, agility and accuracy played a role in improving skill performance (12)

Conclusions:

- There is a significant correlation between the characteristics of agility and accuracy and the level of skill performance in weapon sword fencing, which is represented by (advance with a jump three steps and return with a jump three steps, a decisive attack, a diagonal defense)

Recommendations:

- Need for coaches to pay attention to the abilities specific to fencing, especially the qualities (agility and accuracy).
- necessity of highlighting the level of skill performance in the sport of fencing, as it is the important axis in deciding the results of fights and for the benefit of the best in the sport of fencing.

- Conduct similar studies on other kinetic characteristics and abilities for different age groups

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Appendix (1)

A form to evaluate the level of skill performance in fencing

- Player's name/
- Total length/
- Weight/
- Chronological age/
- Training age/

No.	Level of skill performance	smooth (10) movement	Movement (10) timing	Movement Compatibility (10)	Total grades/3 final grade
1	Go forward three steps and go back three steps by jumping				

2 A decisive attack

3 Diagonal defense

- Signature /
- Name/
- Scientific title /
- Precise specialization/
- Workplace /
- Date/

الرشاقة والدقة وعلاقتها بمستوى الاداء المهارى في سلاح سيف المبارزة

غصون خلف عزيز 1 ، اشراق غالب عودة 2

2&1 جامعة بغداد / كلية التربية البدنية و علوم الرياضة للبنات

تتطلب رياضة المبارزة سرعة في الأداء الحركي على الملعب وحركة مستمرة ما بين تقدم وتقهقر وحركات الهجوم والدفاع لذا وجب ان يمتلك اللاعب قدرة الاستمرار بالعمل العضلي المتناسق مع وجود توافق كامل بين حركات الجسم والحركات الفنية باستخدام اليد والرجل باستمرار وتقدير لمسافة التبارز وسرعة الهجوم نحو الخصم وبشكل مفاجئ وبجهد وقدرة عضلية تنطلق دفعة واحدة بأقصى سرعة واقل زمن وصولا إلى الهدف القانوني للخصم من اقرب واقصر طريق وبدقة متناهية لتسجيل لمسة . وللوصول الى نتائج متقدمة في رياضة المبارزة للنساء لا بد لنا نحن كعاملين في هذه الرياضة من الوقوف عند محددات اساسية لها أهمية في رياضة المبارزة والتي تمتلكها كل لاعبة وخاصة في سلاح سيف المبارزة والتي من الممكن تطويرها على وفق الأسس العلمية الصحيحة لذا رأيت الباحثتان ومن خلال متابعتهم لرياضة المبارزة والاطلاع على ما هو جديد وحديث بهذه الرياضة العريقة تسليط الضوء على بعض القدرات الخاصة (كالرشاقة والدقة) والمؤثرة تأثيرا كبيرا بمستوى الاداء المهارى بسلاح سيف المبارزة بشكل خاص والمبارزة بشكل عام لذا استخدمت الباحثتان المنهج الوصفي وذلك لملائمته وموضوع الدراسة اما عينة البحث فقد كانت لاعبات منتخب كلية التربية البدنية وعلوم الرياضة للبنات والبالغ عددهن (16) لاعبة للموسم الرياضي (2023-2024) اما اهم الاستنتاجات فكانت (وجود علاقة ارتباط ايجابية بين صفتي الرشاقة والدقة ومستوى الاداء المهارى بسلاح سيف المبارزة) ومن اهم التوصيات التي خرجت بها الباحثتان ضرورة الاهتمام من قبل المدربين بالقدرات الخاصة برياضة المبارزة وخاصة صفتي الرشاقة والدقة مع ضرورة تسليط الضوء على مستوى الاداء المهارى برياضة المبارزة كونه المحور الهام في حسم نتائج النزالات ولصالح المبارز الافضل ايضا اجراء دراسات مشابهة وعلى صفات وقدرات حركية اخرى ولفئات عمرية مختلفة.

مستخلص البحث

الرشاقة ، الدقة ، مستوى الاداء المهارى ، سلاح سيف المبارزة

الكلمات المفتاحية