

Kinematic analysis the performance of the skill of the counter-attack to close the distance in the sport of fencing (foil weapon) as a basis to determine the Educational steps to skill

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The Research Introduction and its importance:

Fencing is still between two thoughts through analytical processes to play and plans to choose the appropriate solutions for different performances of the players, and these different renderings are a set of special skills and the sport of fencing that must be mastered by the player.

This is done through skills and its perfectness and integration, so that up to be performed as it should under any circumstances, of the conditions of competition. (16: 150)

And that his persistence and stability of performance skill level are determined depending on the degree to imagine and understand and accommodate to the characteristics of the player, and it represents stability and accuracy performance indicators skill actual basis for the installation and

construction of the movement and then move on to the degree of the mechanism and workmanship. (12: 90.91)

It requires that the player must master the skill through different aspects of which a good coach must absorb the skill performance through the basic means to that, biomechanics and kinematic analysis to get to know the exact characteristics of this performance has proven many studies the contribution of the biomechanics to develop and improve skill performance and access by the of ideal performance. (18: 2) (9:11)

And skills of fencing is marked by diverse through aggressive planning, including what is done through defense planning

The counter-attack is an important and basic of the set of skills for the sport of fencing and through the work of a

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survey of many of studies by the researcher This skill is important came in third place after the offensive skills and defensive skills and by many of the skills arrangement and important as the skills of the attack on the setup and Reply counter and sequels.

This besides that there has been innovative changes in the way the implementation of this skill to achieve higher success rate in their performance and allows a high chance of safety during the implementation process.

Hence the research problem and the need for it where it was known to the researcher is not discuss the skill counter-attack manner performance by closing the distance and rotation with waist , in any of the studies, research and private kinetic analysis of these research here was the importance of research and the need for it to stand on the ideal performance to implement Such skill by identifying the sequence different body and get to know the amount of speed and angles for these parts.

Research aims:

- Identify the characteristics of kinetic skill counter-attack in

the sport of fencing (foil weapon) through:

1. Studying the change of angular and angular velocity during skill performance under discussion.
2. Studying the range of motion and speed for different body points during skill performance under discussion.
3. Determining the educational steps to implement the skill under discussion.

Research inquires:

- What are the kinetic characteristics of skill counter-attack in the sport of fencing (foil weapon)? This is done through answer the following questions:

1. What are the changes the angle and corner speeds during skill performance under discussion?
2. What are the changes to the extent of motor speeds and different body points during the performance of the skill under discussion?
3. What are the educational steps to implement the skill under discussion?

The Search Terms

Kinematics: a branch of Mechanics and associated with the movement of the naked bodies of variables without

exposure to the forces that cause them. (10: 133)

The counter-attack: a variety of forms of offensive movements that the performance of the player (Swordsman) to compete during the same times as the lead contender this attack. (4: 133)

The Search procedures:

Research Methodology:

The researcher used the descriptive approach to the relevance of this research.

The research community:

The players of the fencing sport (foil outstanding Egyptians) at the global level.

The research sample:

The research sample was chosen in the intentional way, because the nature of research based on the outstanding performance and best technically to perform their own skill, timing and spacing appropriate to the nature of their performance.

- The player Aladdin Al Qasimi was chosen as (the first World Junior Championships and the second London Olympics 2012)

- Some of the specifications of the player (Egyptian – born on 25, November 1990 - Height 188 cm - Weight 82 kg)

- It has been shooting three attempts to the player and was named best attempt in accordance with the views of a group of three experts (according to the following specifications to the experts "to obtain a doctorate degree in fencing and has worked as a coach for the same specialization period not less than three years" - (The choice Terms to try are to be compatible with optimal performance of the terms of a skill (preparation and then touch and then close the distance and coverage with the sword and then escape turnover for protection), and the performance is clear and suitable for analysis.

Hardware and tools Search:

- The use of number (1) video digital camera frequency 25 cadre / second speed, vertical and placed on the player's performance path and after him 12:00 and at 1.25 m from the surface of the earth to cover an area of 8m is the field of taking photos which the player can perform is under discussion, as the use of standards jousting circuit known as a measure of dimensional drawing.

- A computer with video card (Av .Master) (kinetic analysis

program and Win Analyze)) with the potential of two-dimensional (image processing - adjust the display resolution Calculation and analysis of the wheel speed and angles in two-dimensional system)

The basic study:

1-determine the stages and the designation of angles and points of skill under discussion.

2. Make the photograph process (17 / September / 2013).

3. Kinmeteki performance analysis and data variables and performance achieved through (distances and angles and velocities of the points).

Related studies:

- Studies are arranged chronologically from newest to oldest, it has included: (1) studies on the biomechanics operations analysis to get to the paths and speeds optimal performance skills. 2. Studies of steps to determine the educational performances footwork

- Mohamed Suleiman Abdul Latif (2013) (13) has offered study entitled "Comparison skill characteristics of skill curvature successor (front and back center) in the sport of wrestling," The study aims to

determine the characteristics of the method of performance skill curvature curve successor (front and back center) in the sport of wrestling , the researcher used the descriptive of relevance to the nature of the research, was chosen as the research sample way intentional and consisted of one player leads the skill with all of my way of performance, the researcher used statistical analysis of Social Sciences program in data processing Statistically, was the most important results focus on increasing the power vertical in the preliminary stage and that to prevent the opponent from shutting complete the skill performance, and increase the speed and power rate obtained in the main phase of the skill and the provisions install rival in the development of risk the largest amount of points to collect.

- Ayman Fares Ahmed Musa (2006) (7) study titled ": kinematic characteristics as a basis for the design of an educational program for the skill hit the ball with the flat face of the stick in hockey field" the research was applied on the sample of (2) players of the best hockey players in

Egypt and they are the model for the characterization of skill and each player has led two attempts, and experimental sample comprised of 20 players from beginners, researcher has used the descriptive approach then experimental appropriateness of the study, the most important thing about the study reached to sequence and track the overall performance of skill declined skill performance time to hold the course of the movement, and to reach a performance program.

Cronin & Marshall have offered a study (2003) (17) entitled - "Simple and appeal associated with an inspired resumed appeal" and study aims to comparison between the biometric performance of the skill of the simple appeal and performance skill appeal associated with aimed attack and researchers used the descriptive approach and reached the study sample (31) player used species the three weapons and various were the most important results that the amount of force Simple appeal under attack by 50% of the amount of force challenged the attack as the complicated speed in less appeal solo in different

proportions for appeal resumed.

- Ibrahim Fawzi study (2002 m) (2) entitled "The dynamic characteristics of the stages of learning a skill to identify the stages of learning experienced by the player when learning the skill and characteristics dynamic for each stage and reached the sample (22) player from beginner to learn the skill and researcher used system video photography three-dimensions and kinetic analysis and of the most important results that have been reached motor learning stages through which the learner skill five stages each with its own characteristics dynamic that distinguish them from the other. The researcher also recommends interesting stages five learning and carrying out this type of research on other skills in wrestling and other sports.

Minamitani et al (2002) (19) has made a study entitled ("biometric Characteristics) by the method (Uche Mata) to throw in judo, "and was in order to determine the effectiveness of the method of Flamingo and compare the way for traditional pitch (Uche Mata) and which have been

developed by Japan's national players . The number of the sample was (2) player operators and have starring Japanese universities and used cameras Video and computer program for analysis motor, and the most important results of the performance of chucking stage (kata) was the fastest in the Flamingo way rather than in the traditional way and whenever performance skill faster less time available for a discount for an attack counter, as well as a study proved that the method of the upgraded flamingo is better than traditional method.

- Ibrahim Ahmed Gazar study (2001) (1) entitled biomechanics analysis of the performance of the skill of the background throw confrontation (front center) in order to identify biomechanics characteristics to perform the skill under discussion , where the researcher used the descriptive method and applied his research to the world junior champion, using kinetic analysis system using video cameras ,One of the most important findings that the preliminary stage time is 28.57% 48.05% main stage and final stage time 23.38% of the

total time to perform with the recommendation that the skill training of trainers and study the biomechanics of different means and the possibility of the development of motor performance.

- Mohamed Suleiman Mahmoud (1998) (13) study entitled "kinematic characteristics of the method performance respond skillfully unequivocal in the back of the players epee" the research was applied on intentional sample of players of the Egyptian national epee team which lead to s a strong one player has reached the number of attempts five The researcher have used the descriptive approach, and resulted in findings that skill under performed in the period of time of 0.6 s, and leads the main part of the skill and which represents skillfully unequivocal in the period of time of 0.14 w that the introduction of weapons (Shrew) is the fastest point of skill performance points where the speed was 11.64 m / s.

Stages of performance counterattack skill by rotation of the trunk are divided into several stages:

The first stage: the stage of preparation for the

performance of the skill under discussion through retreating back

Second stage: the essential first stage, a touch stage through unfolding the arm and the tendency of the trunk forward with the touch while moving the rear foot back.

The third stage: the second basic stage of Escaping with the trunk to the side with close distance and coverage by the sword

Phase IV: Final phase full rotation with the trunk .

Angles:

Armed side angles (6) angles, and the unarmed side is (6) angles

- Corner (1) ankle between two points (foot - and knee)
- Corner (2) knee between points (ankle - and thigh)
- Corner (3) between the points of the basin (knee - and shoulder)

- Angle (4) shoulder from the bottom (armpit) between the points (pelvis - and annex)

- Corner (5) wrist (between points (annex - and Fist)

- Corner (6) Fist (between points (wrist – beginning of the sword)

Points:

Armed side points (10) and the unarmed side is (9):

(1) Instep - (2) heel - (3) Knee

- (4) the pelvis - (5) shoulder - (6) Annex.

- (7) wrist - (8) Fist - (9) the beginning of the sword

- (10) head

Viewing and discussing the results of the first hypothesis:

: - Is clear from the tables (1), (2), (3), (4) with respect to corners of the body:

Table (1)

The arithmetic average of the change of angular and angular velocity to perform the counter-attack skill (by locking distance to

And that for armed side of the corners of the avoid touching ankle, knee, the pelvis

Angular velocity		Angular change		Performance per second	Sequence performance	Corner
Average	Value of the speed corner	Average	Value of the angular change			
٤١,٩١	0.00	٩٩,٥٣٢	89.277	0.00	The beginning of the preparatory phase	Ankle (foot with leg)
	6.5		102.688	0.28	The end of the preparatory phase	
١٣,٤٦٢	23.175	١٠١,٩٦	103.615	0.32	The beginning of the main phase to achieve the touch	
	48.125		99.457	0.52	The end of the main stage to achieve the touch	
٨,٩٣	126.15	١٠٦,٩٢٢	104.503	0.56	The beginning of the second phase of the basic coverage of the sword and escape with trunk	
	172.35		101.243	0.72	The end of the second phase of the basic coverage of the sword and escape with trunk	
١٢٣,٧٤٦	189.95	١٠٢,٩٢١	93.645	0.76	The beginning of the final phase rotation with trunk	
	537.85		135.892	1.00	The end of the final stage of rotation with trunk	
٤٢,٧٤	0.00	١٤٠,٨٨٤	118.794	0.00	The beginning of the preparatory phase	Knee (leg with thigh)
	0.9		132.47	0.28	The end of the preparatory phase	
٣٩,١٧٥	43.225	١٢٢,٣٥٥	130.741	0.32	The beginning of the main phase to achieve the touch	
	93.25		123.068	0.52	The end of the main stage to achieve the touch	
١٦٣,٩٠٥	278.175	١٤٧,٨٩٩	134.195	0.56	The beginning of the second phase of the basic coverage of the sword and escape with trunk	

FollowTable (1)

The arithmetic average of the change of angular and angular velocity to perform the counter-attack skill (by locking distance to

**And that for armed side of the corners of the avoid touching
ankle, knee, the pelvis**

Angular velocity		Angular change		Performance per second	Sequence performance	Corner
Average	Value of the speed corner	Average	Value of the angular change			
	34.15		155.849	0.72	The end of the second phase of the basic coverage of the sword and escape with trunk	
٧١,٣٧١	38.15	١٦٧,٨٥٩	157.375	0.76	The beginning of the final phase rotation with trunk	
	163.25		175.833	1.00	The end of the final stage of rotation with trunk	
١١,٧٤	0.00	٩٥,٧٨١	92.931	0.00	The beginning of the preparatory phase	Pelvis (Onyx with thigh)
	10.8		89.175	0.28	The end of the preparatory phase	
٤١,٨٨٧	25.875	٨٥,٤٨٦	90.21	0.32	The beginning of the main phase to achieve the touch	
	-92.1		79.122	0.52	The end of the main stage to achieve the touch	
١٧٠,٦٣٥	74.225	٩٨,٥٣٣	82.091	0.56	The beginning of the second phase of the basic coverage of the sword and escape with trunk	
	208.025		113.249	0.72	The end of the second phase of the basic coverage of the sword and escape	
٢٠٩,٤	165.075	١٥١,٠٣٥	119.852	0.76	The beginning of the final phase rotation	
	81.825		171.881	1.00	The end of the final stage of rotation	

Table (2)
The arithmetic average of the change of angular and angular velocity to perform the counter-attack skill (by locking distance to avoid touching) And that for the armed side of the corners of shoulder and elbow and wrist

Angular velocity		Angular change		Performance per second	Sequence performance Average	Corner Value of the speed corner
Average	Value of the speed corner	Average	Value of the angular change			
١٤,٧٩	0.00	١١,٣٩٧	7.118	0.00	The beginning of the preparatory phase	Shoulder (humorous with a side of the body)
	50.275		11.85	0.28	The end of the preparatory phase	
٤٥١,٢٦٢	144.025	٧٠,٥٧٦	17.611	0.32	The beginning of the main phase to achieve the touch	
	376.875		120.153	0.52	The end of the main stage to achieve the touch	
٣٨٦,٧٨	15.4	٧٨,٧٤٥	120.769	0.56	The beginning of the second phase of the basic coverage of the sword and escape with trunk	
	305.625		42.797	0.72	The end of the second phase of the basic coverage of the sword and escape with trunk	
٤,٠١٠	65.175	٤١,٠٥٣	40.19	0.76	The beginning of the final phase rotation with trunk	
	86.825		43.92	1.00	The end of the final stage of rotation with trunk	
١٣,٠١	0.00	١٠١,٠٢٩	100.658	0.00	The beginning of the preparatory phase	Appendix (upper arm with the forearm)
	69.1		96.495	0.28	The end of the preparatory phase	
٢١٦,٤٧٩	24.2	١٢٣,٢٣٢	95.527	0.32	The beginning of the main phase to achieve the touch	
	5.05		148.45	0.52	The end of the main stage to achieve the touch	
٥,٨٥٥	620.175	١١٤,٥٦١	123.643	0.56	The beginning of the second phase of the basic coverage of the sword and escape with trunk	

Follow Table (2)
The arithmetic average of the change of angular and angular velocity to perform the counter-attack skill (by locking distance to avoid touching) And that for the armed side of the corners of shoulder and elbow and wrist

Angular velocity		Angular change		Performance per second	Sequence performance Average	Corner Value of the speed corner
Average	Value of the speed corner	Average	Value of the angular change			
	978.95		147.279	0.72	The end of the second phase of the basic coverage of the sword and escape with trunk	
٢٠,٥٢١	1179.2	١٥٩,٦٢١	194.447	0.76	The beginning of the final phase rotation with trunk	
	233.3		141.533	1.00	The end of the final stage of rotation with trunk	
٣٤,٠٢	0.00	١٦٢,٤٥٨	170.571	0.00	The beginning of the preparatory phase	Wrist (forearm with the sword)
	11.775		159.685	0.28	The end of the preparatory phase	
١٥,٤٨٣	172.825	١٦١,٥٨٦	166.598	0.32	The beginning of the main phase to achieve the touch	
	230.35		155.969	0.52	The end of the main stage to achieve the touch	
٢٦٩,٠٤	503.125	١٥٠,٤٥٩	176.094	0.56	The beginning of the second phase of the basic coverage of the sword and escape with trunk	
	715.175		102.161	0.72	The end of the second phase of the basic coverage of the sword and escape with trunk	
١٨٢,٠٣٥	460.125	١٥٤,٥٣٥	120.566	0.76	The beginning of the final phase rotation with trunk	
	50.525		153.131	1.00	The end of the final stage of rotation with trunk	

Table (3)
The arithmetic average of the change of angular and angular velocity to perform the counter-attack skill (lock distance to avoid touching) And that for armed side of the corners of the ankle, knee, the pelvis

Angular velocity class again		Angular change class		Performance per second time	Sequence performance Average	Corner Value of the speed corner
Average	Value of the speed corner	Average	Value of the angular change		Average	Value of the speed corner
٣٧,١٢	0.00	١٢٧,٦٠٨	119.039	0.00	The beginning of the preparatory phase	Ankle (foot with leg)
	156.375		130.918	0.28	The end of the preparatory phase	
٢٢,٣٦٦٦	132.35	١١٢,٤٥٧	125.624	0.32	The beginning of the main phase to achieve the touch	
	516.25		125.55	0.52	The end of the main stage to achieve the touch	
٩٣,٠٤	833.225	١٠٧,٥٣٥	158.879	0.56	The beginning of the second phase of the basic coverage of the sword and escape with trunk	
	39.525		144.158	0.72	The end of the second phase of the basic coverage of the sword and escape with trunk	
١٩٢,٩٩٦	491.225	١٣٠,٧٥٤	163.807	0.76	The beginning of the final phase rotation with trunk	
	14.35		90.119	1.00	The end of the final stage of rotation with trunk	
٥٨,٨٩	0.00	١٠٨,٥٦٥	143.216	0.00	The beginning of the preparatory phase	Knee (leg with thigh)
	88.925		162.061	0.28	The end of the preparatory phase	
٥,٤٧٠	93.8	١٥٦,٩٨٦	158.309	0.32	The beginning of the main phase to achieve the touch	
	197.025		163.374	0.52	The end of the main stage to achieve the touch	

Follow Table (3)
The arithmetic average of the change of angular and angular velocity to perform the counter-attack skill (lock distance to avoid touching) And that for armed side of the corners of the ankle, knee, the pelvis

Angular velocity class again		Angular change class		Performance per second time	Sequence performance Average	Corner Value of the speed corner
Average	Value of the speed corner	Average	Value of the angular change		Average	Value of the speed corner
٣٢,٢٩	130.95	١٧٤,٣٩٢	168.612	0.56	The beginning of the second phase of the basic coverage of the sword and escape with trunk	Pelvis (Onyx with thigh)
	109.65		169.832	0.72	The end of the second phase of the basic coverage of the sword and escape with trunk	
٢٨٤,٦٨٩	63.35	١٣١,١٥٨	172.366	0.76	The beginning of the final phase rotation with trunk	
	14.35		90.119	1.00	The end of the final stage of rotation with trunk	
٨,٢٣	0.00	١٦١,١٣٣	163.726	0.00	The beginning of the preparatory phase	
	60.75		161.092	0.28	The end of the preparatory phase	
٥٢,٤٠٨	46.825	١٧٢,٢٧٧	162.965	0.32	The beginning of the main phase to achieve the touch	
	102.575		173.91	0.52	The end of the main stage to achieve the touch	
٦٣,٥٥	210.05	١٦١,١٢١	165.508	0.56	The beginning of the second phase of the basic coverage of the sword and escape with trunk	
	88.95		161.2	0.72	The end of the second phase of the basic coverage of the sword and escape with trunk	
٢٥٣,٨٦٠	23.875	١٢٨,٥٥٧	162.155	0.76	The beginning of the final phase rotation with trunk	
	14.35		90.119	1.00	The end of the final stage of rotation with trunk	

Table (4)
The arithmetic mean and standard deviation of the change and the angular speed corner performance skill counterattack by locking the distance for the unarmed corners of the shoulder, elbow and wrist

Angular velocity		Angular change		Performance per second	Sequence performance Average	Corner Value of the speed corner Value of the speed corner
Average	Value of the speed corner	Average	Value of the angular change			
١٧,٢٣	0.00	٢٥,٠٩٠	18.536	0.00	The beginning of the preparatory phase	Shoulder (humors with a side of the body)
	21.475		24.048	0.28	The end of the preparatory phase	
١٠٠,١١٦	5.3	٣٦,٣٠٢	24.26	0.32	The beginning of the main phase to achieve the touch	
	83.4		48.076	0.52	The end of the main stage to achieve the touch	
٢١,٤٩٥	88.4	٦٢,٦٧٢	51.612	0.56	The beginning of the second phase of the basic coverage of the sword and escape with trunk	
	434.85		52.375	0.72	The end of the second phase of the basic coverage of the sword and escape	
٤,٩٢٥	323.3	٤٢,٣٥٠	39.443	0.76	The beginning of the final phase rotation with trunk	
	134.1		50.996	1.00	The end of the final stage of rotation with trunk	
٢٠,١٩	0.00	٧٠,٦٩٩	71.945	0.00	The beginning of the preparatory phase	Appendix (upper arm with the forearm)
	84.075		78.407	0.28	The end of the preparatory phase	
٣١١,٥١٢	16.7	٤٤,٤٣٦	77.739	0.32	The beginning of the main phase to achieve the touch	
	439.975		3.644	0.52	The end of the main stage to achieve the touch	
٧٩٨,٤٦	288.45	١٥٩,٣٩٥	15.182	0.56	The beginning of the second phase of the basic coverage of the sword and escape with trunk	

Follow Table (4)
The arithmetic mean and standard deviation of the change and the angular speed corner performance skill counterattack by locking the distance for the unarmed corners of the shoulder, elbow and wrist

Angular velocity		Angular change		Performance per second	Sequence performance Average	Corner Value of the speed corner Value of the speed corner
Average	Value of the speed corner	Average	Value of the angular change			
	880.25		163.336	0.72	The end of the second phase of the basic coverage of the sword and escape with trunk	Wrist (forearm with the sword)
٩٤,٣٦٤	618.125	١٢٩,٩١٢	138.611	0.76	The beginning of the final phase rotation with trunk	
	127.9		136.914	1.00	The end of the final stage of rotation with trunk	
٨,٩٢	0.00	١٧٤,٠٨٣	159.568	0.00	The beginning of the preparatory phase	
	102.225		162.424	0.28	The end of the preparatory phase	
٣٣	96.825	١٧٨,٠٨٥	166.297	0.32	The beginning of the main phase to achieve the touch	
	635.95		154.504	0.52	The end of the main stage to achieve the touch	
٦٣,١٨٥	370.35	١٦٢,٢٦٢	139.69	0.56	The beginning of the second phase of the basic coverage of the sword and escape with trunk	
	141.725		167.141	0.72	The end of the second phase of the basic coverage of the sword and escape with trunk	
١٢,٦١٤	71.85	١٦٨,٥٩٧	164.267	0.76	The beginning of the final phase rotation with trunk	
	6.675		170.673	1.00	The end of the final stage of rotation with trunk	

1-1 – ankle angel : armed side by the preparatory stage ,the average change angular 99.53 and the average angular velocity 41.91, either unarmed side average change angular 127.60 and the average angular velocity 37.12, stage to touch armed side by the average change angular 101.96 and angular velocity was 13.46 others and armed side average change angular 112.45 and the average angular velocity is 22.36, the second main stage dodge rival touch and escape the trunk average change angular 106.92 and angular velocity 8.93 either unarmed side average change Angular 157.53 and the average angular velocity 93.04, and final stage sequel Escape rotation of the trunk average angular change mainly 102.92 The average angular velocity and foremost is 123.74 either unarmed side average change angular 130.75 and average angular velocity is 192.99.

- **And comment on the ankle angle:** we find that it is in the preparatory phase has through retreat back from standby in which leg is the perpendicular to the foot and almost tend to detente during the retreat movement of back description of performance skill to skill retreat back position is consistent with both "Ashraf Mossad Ibrahim (2014), Osama Abdel-Rahman (2003) (5), Ibrahim Nabil in 1999 (3),

Amr Al Sokary 1993 (11).” (6:21) (127:5) (3: 84) (11: 79-82)

The basic second stage was the movement of a mile for front and achieving the touch during the background transfer foot behind was the angular velocity of the foot back faster than the front foot, and this is consistent with the nature of that skill where the touch was at this stage, and this is consistent with nature of performance of skill, the final stage was Speed corner of the rear feet faster than foot

1-2 – knee angle : for the armed side the Preparatory average change angular mainly 140.88 and the average speed 42.74 corner, while the third side armed average change angular 158.56 and the average angular velocity 58.89, stage is to touch armed side by the average change angular 122.35 and angular velocity was negative 39.17 and the side of others armed side average change angular 156.98 and the average angular velocity 5.47, the second main stage dodge touch rival and escape the trunk average change angular 147.89 and angular velocity 163.90 The side unarmed average change Angular 174.39 and the average angular velocity 32.29, and final stage sequel Escape rotation of the trunk average change angular mainly 167.85 The average angular velocity and foremost

71.37 The side unarmed average change angular 131.15 and 284.68 average angular velocity.

- **And comment on the knee angle:** we find that it commensurate with the nature of the standby mode for the knee which is the angle between the leg and thigh obtuse, ranging from an increase of detente and downgrade while moving backward and forward angle and this is what happened in all stages of skill performance and noted that the maximum speed of the angle knee has During the second stage, the basic process during the escape alarmed as I arrived to near the speed of the weakest three other stages.

1-3 –pelvis angle : the armed side by the stage preparatory average change angular class 95.78 and the average speed 11.74 corner, either unarmed side average change angular 161.13 and the average speed 8.23 corner, stage is to touch armed side by the average change angular 85.48 and angular velocity was negative 41.88 and side unarmed average change angular 172.27 and the average speed 53.40 corner, the second main stage dodge touch rival and escape the trunk average change angular 98.53 and angular velocity 170.63 The side unarmed average change Angular 161.12 and the

average speed 63.55 corner, and final stage sequel Escape rotation of the trunk average angular change mainly 151.03 The average angular velocity primarily 209.4 The side unarmed average change angular 128.55 and 253.86 average angular velocity.

- **And comment on the pelvic angle:** we find that the phases of the pelvic angle marked tendency to be angled and simple and this shows that there is a tendency alarmed the front of which is the offensive and turn to high obtuse angle breakthrough seemed the end of the second basic stage and increase at the end of the final stage until it reaches to near the straight line and this in rotation alarmed stage, and with regard to speed corner mainly in the second ranging from slow speed in the first phase and rotation must be done as quickly as possible to avoid a touch competitor and must be done by surprise without the preparation so as not to notice her rival.

1-4 – shoulder angle : for the armed side the Preparatory average angular change class 11.39 and the average speed 14.79 corner, while the third side armed average change angular 25.09 and the average angular velocity 17.23, stage is to touch armed by the average change angular 70.57 and angular velocity was 451.26 unarmed and side Average

change angular 36.30 and the average angular velocity 100.11, the second main stage dodge touch rival and escape the trunk average change angular 78.74 and angular velocity 386.78 The side unarmed average change Angular 62.67 and the average angular velocity 21.49, and final stage sequel escaping rotation of the trunk average angular change class 41.05 and the average angular velocity 4.01 The side mainly unarmed average change angular 42.35 and the average angular velocity is 4.92.

- **And comment on the shoulder angle:** we find that the corner position commensurate with the nature of the willingness of a situation where the shoulder angle be acute usually implements put a fist between the elbow and the trunk, and for the stage is to touch off the movement of acute angle Touch then turn to the obtuse angle of up to 120 degrees, the basic second stage shoulder starts from the obtuse angle to an acute angle so as to achieve the goal of the nature of the performance of this stage, a coverage sword after recording touch and lock the distance, and continue at the same acute angle in the final stage, the description Speed is proved by the corner facts accurately take into account when implementation is that the angular velocity in the

preparation phase to be very modest and be an average of 14.79, then Suddenly in touch stage increases speed is very sudden and up to 607.1 angular velocity second place and this the fastest ever at all stages This detailed coverage process except the sword after placing touch and in the second stage where the basic amounted to 682.1 Then comes the final stage simple quickly.

1-5 - **Annex angle** :the armed side by the stage preparatory average change angular mainly 101.02 and the average angular velocity 13.01, while the third side armed average change angular 70.79 and the average angular velocity 20.19, stage is to touch armed by the average change angular 123.23 and angular velocity was 216.47 Non-side armed average change angular 44.43 and the average speed 311.51 corner, the second main stage dodge touch rival and escape the trunk average change angular 114.56 and angular velocity 5.85 The side unarmed average change Angular 159.39 and the average angular velocity 798.46 and the concluding stage sequel Escape rotation of the trunk average change angular mainly 159.62 The average angular velocity primarily 20:52 The side unarmed side average change angular 129.91 and 94.36 average speed corner.

- **And comment on the Annex angle:** we find that obtuse angle due to the beginning of the movement of the preparation of the eighth situation is a situation that may be appropriate in order to avoid the preparation of the sword by rival skillfully beating sword, the touch is to flex the arm and be almost corner about 180 degrees This is consistent with the technical descriptions of skill individual farmers to register a touch, for each of the "Osama Abdul Rahman in 2003 (5), Ibrahim Nabil in 1999 (3), Amr Al Sokary 1993 (11)." (5: 197) (3: 120) (11: 97: 82) the the second basic phase of arm movement is moving to close the corner and gradually reach the obtuse angle is 147 almost a commensurate with the coverage phase of the sword and escape and close the distance, final stage shall be 166,4 obtuse angle almost to follow coverage of the sword and escape to rotate This fits with the form of skill performance, and the arm of others armed continue in the same form of performance almost in urbanization stage and the stage of achieving touch where the angle is sharp and started to detente in the second coverage of the sword and the outcome of this suit with the form of skill performance.

And comment on the angular velocity is clear that they are

starting from scratch like all angles at the preliminary stage and increase the angular velocity in phase is to reach 450.1 angular velocity primarily a second is suitable for touch speed and increase speed in the second basic stage a coverage sword to reach 978.9 a an important stage to prevent the threat from rival sword and speed continue to increase until the speed reaches a very high 1179.2 is the fastest in this detailed performance of their importance in more protection for the goal in the final stage.

1-6-wrist angle : the armed side for the Preparatory average change angular mainly 162.45 and the average angular velocity 34.02, either side unarmed average change angular 174.08 and the average angular velocity 8.92, phase is to touch the armed side by the average change angular 161.58 and angular velocity was negative 15.48 and side unarmed average change angular 178.08 and the average angular velocity -33.00, the second main stage dodge touch rival and escape the trunk average change angular 150.45 and angular velocity 269.04 The side unarmed average change angular 162.26 and the average speed 63.18 corner, and final stage sequel Escape rotation of the trunk Average

angular change mainly 154.53 and the average angular velocity and foremost 182.03 either side of others armed average change angular 168.59 and the average angular velocity 12.61.

- And comment on the wrist angle: we find that the armed arm in the preparation phase was obtuse angle wrist and continued with in the rest of the performance stages and as for the unarmed obtuse angle in the four stages and this is consistent with the nature of the physiological structure of this joint.

The angular velocity of this detailed and modest in most phases This is because the work of this detailed in directing the sword to the target area is the work is accurate and not speed in the first place and despite that it has reached speed in phase to angle capacity estimated at 863.8, and in the stage and in

the final stage It reached 755.1 and this speed was the height commensurate with the nature of the second and final phase of the basic stage which is characterized order to cover up the sword to protect against attack rival and complement the protection supplement coverage and protect the target of attack the opponent's area.

This is consistent with the study for both "Mohammed Suleiman Abdul Latif (2013) (13) and Ibrahim Ahmed Gazar study (2001) (1) - Mohamed Suleiman Mahmoud (1998) (14)" determine the exact path of the skills by identifying the study of change of angular speed corner during the performance skills through biomechanics analysis.

Viewing and discussing the results of the second hypothesis:

It is proved from the tables (5), (6) with regard to the different points of the body:

Table (5)
The amount of long horizontal speed and skill to perform the counter-attack lock the distance By third parties to armed points to the body under study

Speed	Term horizontal	Angles	Speed	Term horizontal	Angles	Speed	Term horizontal	Angles	Sequence performance
0.629	11.282	Appendix	0.107	0.509	Pelvis	0.579	0.984	Foot	The beginning of the preparatory phase
0.679	10.09		0.163	0.625		1.558	1.019		The end of the preparatory phase
0.967	4.283		0.135	0.626		1.211	1.078		The beginning of the main phase to achieve the touch
1.722	3.549		3.032	0.326		2.396	1.005		The end of the main stage to achieve the touch
1.709	4.233		3.425	0.195		3.465	0.888		The beginning of the second phase of the basic coverage of the sword and escape with trunk
1.311	10.149		3.15	0.364		3.972	0.199		The end of the second phase of the basic coverage of the sword and escape with trunk
0.511	29.842		2.934	0.485		3.977	0.045		The beginning of the final phase rotation with trunk
1	0.151		1.88	1.06		2.925	1.073		The end of the final stage of rotation with trunk

Follow Table (5)
The amount of long horizontal speed and skill to perform the counter-attack lock the distance By third parties to armed points to the body under study

Speed	Term horizontal	Angles	Speed	Term horizontal	Angles	Speed	Term horizontal	Angles	Sequence performance
-	0.216	Hand	0.346	0.25	Shoulder	0.411	0.99	Ankle	The beginning of the preparatory phase
0.506	0.374		0.156	0.376		1.572	1.045		The end of the preparatory phase
0.312	0.393		0.049	0.38		1.344	1.103		The beginning of the main phase to achieve the touch
1.398	0.185		3.604	0.043		3.573	1.006		The end of the main stage to achieve the touch
1.036	0.138		3.872	0.11		4.655	0.826		The beginning of the second phase of the basic coverage of the sword and escape with trunk
2.707	0.138		2.758	0.665		4.499	0.183		The end of the second phase of the basic coverage of the sword and escape with trunk
2.62	0.248		2.368	0.767		4.783	0.009		The beginning of the final phase rotation with trunk
1.173	0.724		1.84	1.241		2.65	1.232		The end of the final stage of rotation with trunk

Follow Table (5)
The amount of long horizontal speed and skill to perform the counter-attack lock the distance By third parties to armed points to the body under study

Speed	Term horizontal	Angles	Speed	Term horizontal	Angles	Speed	Term horizontal	Angles	Sequence performance
						0.059	0.678		The beginning of the preparatory phase
						-0.65	0.797		The end of the preparatory phase
						-0.336	0.82		The beginning of the main phase to achieve the touch
						2.403	0.616		The end of the main stage to achieve the touch
						2.916	0.511	Knee	The beginning of the second phase of the basic coverage of the sword and escape with trunk
						3.831	0.108		The end of the second phase of the basic coverage of the sword and escape with trunk
						3.305	0.251		The beginning of the final phase rotation with trunk
						2.495	0.969		The end of the final stage of rotation with trunk

Table (6)
The amount of long horizontal speed and skill to perform the counter-attack lock the distance By third parties to armed points to the body under study

Speed	Term horizontal	Angles	Speed	Term horizontal	Angles	Speed	Term horizontal	Angles	Sequence performance
0.09	-0.066	Appendix	- 0.172	-0.437	Pelvis	- 0.638	0.033	Foot	The beginning of the preparatory phase
1.483	0.721		3.061	-0.138		2.043	0.167		The end of the preparatory phase
1.41	0.751		3.792	0.003		2.258	0.256		The beginning of the main phase to achieve the touch
- 0.497	0.824		3.003	0.597		1.226	0.65		The end of the main stage to achieve the touch
0.925	0.836		2.77	0.711		0.919	0.691		The beginning of the second phase of the basic coverage of the sword and escape with trunk
2.424	1.314		2.169	1.215		0.969	0.865		The end of the second phase of the basic coverage of the sword and escape with trunk
1.871	1.395		1.959	1.296		2.041	0.911		The beginning of the final phase rotation with trunk

Follow Table (6)
The amount of long horizontal speed and skill to perform the counter-attack lock the distance By third parties to armed points to the body under study

Speed	Term horizontal	Angles	Speed	Term horizontal	Angles	Speed	Term horizontal	Angles	Sequence performance
- 0.071	1.614		1.356	1.712		5.555	1.887		The end of the final stage of rotation with trunk
0.116	0.056	Hand	- 0.108	-0.16	Shoulder	- 0.675	-0.183	Ankle	The beginning of the preparatory phase
1.543	0.789		3.178	0.208		2.342	0.013		The end of the preparatory phase
1.433	0.821		2.944	0.339		2.736	0.121		The beginning of the main phase to achieve the touch
- 0.766	0.913		2.726	0.85		1.301	0.552		The end of the main stage to achieve the touch
0.056	0.909		2.583	0.953		0.963	0.596		The beginning of the second phase of the basic coverage of the sword and escape with trunk
2.323	1.219		2.007	1.425		1.634	0.748		The end of the second phase of the basic coverage of the sword and escape with trunk

Follow Table (6)
The amount of long horizontal speed and skill to perform the counter-attack lock the distance By third parties to armed points to the body under study

Speed	Term horizontal	Angles	Speed	Term horizontal	Angles	Speed	Term horizontal	Angles	Sequence performance
2.001	1.309		1.767	1.5		2.959	0.833		The beginning of the final phase rotation with trunk
0.826	1.548		0.702	1.821		3.502	1.945		The end of the final stage of rotation with trunk
- 0.528	0.598		- 0.075	-0.273		- 0.173	-0.163		The beginning of the preparatory phase
0.185	1.382		3.175	0.439		2.41	0.071		The end of the preparatory phase
0.998	1.389		2.045	0.544		2.882	0.183		The beginning of the main phase to achieve the touch
2.327	1.66		2.238	0.759		2.32	0.629		The end of the main stage to achieve the touch
1.567	1.777	button	2.879	0.863	elbow	1.882	0.714	Knee	The beginning of the second phase of the basic coverage of the sword and escape with trunk
3.83	0.321		2.538	1.436		1.298	1.01		The end of the second phase of the basic coverage of the sword and escape with trunk
3.374	0.507		2.4	1.537		1.477	1.062		The beginning of the final phase rotation with trunk
- 0.582	0.895		1.249	1.891		2.671	1.633		The end of the final stage of rotation with trunk

2.1 **foot Points:** armed side in the stage preparatory distance started of 0.273 and finished 0.035 of a meter and speed started of 0.147 and finished .378 of a second side unarmed distance started of 0.66 and finished 1.01 of a meter fast 0:57 and end speed of 1.55 of a second phase and the side Armed distance started of 0.063 and finished of 0.167 of a meter and quickly .459 and ended quickly 2.043 of a second side unarmed started of 1.07 and finished 1.00 of a meter speed of 1.21 and quickly ended 2.39 of a second, the basic second stage of armed by the distance started of 0.256 and finished 0.65 of a meter quickly started of 2.258 and ends 1.226 side unarmed distance ranging from 0.88 and ends 0:19 fast 3.68 and ends 3.97 of a second, final stage of armed by the distance started of 0.691 and finished 0.865 of a meter quickly started of 0.919 and finished 0.969 of a second, non-side armed distance started of 0:04 and ended 1.07 of a meter speed of 3.79 and ends quickly 2.92 of a second.

2-2 **ankle Points:** the armed side in the stage preparatory distance started of 0.008 and

finished 0.183 of a meter and speed started of 0.297 and finished 0.355 of a second side unarmed distance started of 0.99 and ended 1.04 quickly 0.41 and by the end of the speed of 1.57 of a second phase and the armed side by the distance started of 0.155 and finished 0.013 of a meter and quickly .616 and ended quickly 2.342 of a second unarmed side started of 1.10 and finished 1.00 of a meter speed of 1.34 and quickly ended 3.57 of a second, the basic second stage of armed side by the distance started of 0.121 and finished 0.552 of a meter quickly started from 2.736 and ends 1.301 side unarmed distance ranging from 0.82 and ends 0:18 fast 4.65 and ends 4:49 of the second, the final phase of the armed side distance started of 0.596 and finished 0.833 of a meter quickly started of 0.963 and finished 2.959 of a second, non-armed side distance started than 0.01 and finished 1.23 of a meter speed of 4.78 and ends quickly 2.65 of a second.

- **Comment on the foot points and ankle:** as it is clear from the distances traveled in the preliminary stage has through the work of retreat Back short

distances not exceed per step for almost 16 cm and then begin phase is a touch by a mile during transport rear foot back and this manner is a competitor for an individual growers and achieve touch and then begin the basic Phase II and carried out building on the front foot and the closure of the distance not to supplement the retreat, which was during the touch operation but the background back foot again to the front to close the distance and avoid the opponent's attack and then begin the final stage where smoothly movement continue to supplement feet rotation and transfer rear foot forward on the way of planning skill.

2-3 **Knee Points:** the armed side in the stage of preparatory distance started of 0.001 and finished 0.166 of a meter and speed started of 0.463 and finished 0.175 of a second side unarmed distance started of 0.67 and ended 0.79 Quickly 0.05 and by the end of the speed of 0.65 of a second phase and the armed side by the distance started of 0.149 and finished 0.071 of a meter and quickly .624 and quickly ended 2.41 of a second side unarmed started of 0.82 and

finished 0.61 of a meter speed of 0.33 quickly ended 2.40 of a second, the basic second stage of armed by the distance started of 0.183 and finished 0.714 of a meter quickly started from 2.882 and ends 1.882 side unarmed distance starting from 0:51 and ends 0:10 fast 2.91 and ends 3.83 of a second, final stage of armed by the distance started of 0.78 and finished 1.062 of a meter quickly started of 1.486 and finished 1.477 of a second, non-side armed distance started than 0.25 and finished 0.96 of a meter speed of 3.30 and ends quickly 2.49 of a second.

- **To comment on the point Knee :** As the front and back knee cut off the same distance in the preliminary stage and is almost 16 cm and rapidly decreasing the for the knee and quickly incremental for background knee, the basic stage for the front knee cut 7 cm and the back knee 21 cm, a stage that touch has a through-mile Onyx forward with individual farmers and transfer rear foot three times the front foot distance, and in the basic stage is approximately 60 cm incremental and rear cut 40 cm decreasing distance and these distances lead to the closure of

the distance between the knees and this commensurate with skill performance which escape from the attack rival is it to close the distance and escaping with the alarmed.

2.4 pelvic Points: the armed side in the stage of the preparatory distance started of 0.279 and finished 0.436 of a meter and speed started of 0.091 and finished .269 of a second side unarmed distance started of 0:50 and ended 0.62 Quickly 0.10 and by the end of .16 speed of a second phase of the armed side by the distance started of 0.415 and finished 0.138 of a meter and quickly .641 and ended quickly 3.061 of a second side unarmed started of 0.62 and finished 0.32 of a meter speed of 0.13 and quickly ended 3.03 of a second, the basic second stage of armed by the distance started of 0.003 and finished 0.003 of a meter quickly started from 3.792 and ends 2.77 unarmed and side distance starting from 0:19 and ends 0:36 rapidly 3:42 and ends 3:15 of the second, the final phase of the armed side distance started of 0.818 and finished 1.71 of a meter quickly started of 1.95 and finished 1.35 of a second, non-

side armed distance started of 0.48 and finished 1.296 of a meter speed of 2.637 ends quickly and 2.637 of a second.

2. Shoulder Points: the armed side in the stage of the preparatory distance started of 0.123 and finished 0.16 of a meter and speed started of 0.114 and finished 0.02 of a second side unarmed distance started than 0.25 and finished .37 quickly 0.34 and by the end of the speed of .15 of a second phase of the armed side the distance started of 0.162 and finished 0.208 of a meter and quickly 0.102 and ended quickly 3.178 of a second the unarmed side started of 0.38 and finished 0.34 of a meter speed of 0.04 and quickly ended 3.60 of a second, the basic second stage of armed by the distance started of 0.339 and finished 0.953 of a meter quickly started of 2.944 and ends 2.583 side unarmed distance starting from 0:11 and ends 0.66 Quickly 3.87 and ends 2.75 of a second, final stage of armed by the distance started of 1.057 and finished 1.5 of a meter quickly started of 2.479 and finished 1.767 of a second, non-armed side distance started of 0.76 and ended 1.24 of a meter speed of

2.36 and ends quickly 1.84 of a second.

2-6- attachment points: the armed aspect of the stage preparatory distance started of 0.197 and finished 0.27 of a meter and speed started of 0.159 and finished .438 of a second side unarmed distance started of 11.28 and ended 10.09 quickly 0.62 and the end of the 0.67 speed of a second phase of the armed side by the distance started of 0.237 and finished 0.439 of a meter and quickly 1.416 and ended quickly 3.175 of a second side unarmed started of 4.28 and finished 3.54 of a meter speed of 0.96 and quickly ended 1.72 of a second, the basic second stage of armed by the distance started of 0.544 and finished 0.863 of a meter quickly started from 2.045 and ends 2.879 unarmed and side distance starting from 4:23 and ends 10:14 fast 1.70 and ends 1:31 of the second, the final phase of the armed side distance started of 0.989 and finished 1.537 of a meter quickly started of 3.178 and finished 2.4 of a second, side unarmed distance started of 29.84 and ended 0.15 speed of 0.51 meter and ends quickly 1.00 of a second.

- Comment on the pelvis and shoulder and Annex points: as we find almost the distances and velocities of the points of these points in line with the previous distances and speeds points with the same appreciation.

2-7- **fist Points:** the armed side in the stage of the preparatory distance started of 0.132 and finished 0.067 of a meter and speed started of 0.079 and finished .696 of a second side unarmed distance started of 0:21 and ended - 0.37 Quickly 0.66 and by the end of the speed of .50 of a second phase of the armed side and the distance started of 0.112 and finished 0.789 of a meter and quickly 1.93 and ended quickly 1.543 of a second side unarmed started of 0.39 and finished 0.18 of a meter speed of 0.31 and quickly ended 1.39 of a second, the basic second stage of armed by the distance started of 0.821 and finished 0.909 of a meter quickly started from 1.433 and ends 0.056 unarmed and side distance starting from 0:13 and ends 0:13 rapidly 1:03 and ends 2.70 of a second, final stage of armed by the distance started of 0.917 and finished 1.309 of a meter quickly

started of 0.186 and finished 2.001 of a second, side unarmed distance started of 0:24 and ended 0.72 speed of 2.62 meter and ends quickly 1.17 of a second.

- Comment on the fist Points:

This point appears its importance of the armed growers in basic phase as this point cut 67 cm praise distance operation touch quickly 2 meters per second, the speed is not high but characterized timing and accuracy and the rest of the stages in line with the performance edition and private coverage process sword to protect the smelt from the rival attack.

2-8- points of the beginning of the sword: the armed side of the stage of the preparatory distance started of 0.852 and finished 0.583 of a meter and speed started of 0.313 and finished 0.171 of a second phase of the armed side by the distance started of 0.584 and finished 1.382 of a meter and quickly 1.203 and ended quickly 0.185 of a second, basic second phase of armed started by the distance of 1.389 and finished 1.777 of a meter quickly started of 0.998 and 1.567 ends, the final phase of the armed started along with

the distance of 1.786 and finished 0.507 of a meter quickly started of 5.452 and finished 3.374 of a second.

- comment on the points of the beginning of the sword:

We find that the most important stage at this point is the second phase, a touch stage fevered farmers and was nearly 79 cm and a fast 2 meters per second, as the final stage show clearly through performance speed where up to 5.4 meters per second, High speed consistent with the conclusion of the precipitation stage sword with trunk rotation so as to allow of protection for the goal skill player performer.

This is consistent with both the studies of "Mohammed Suleiman Abdul Latif (2013) (13) Ibrahim Hamad Gazar (2001) (1) - Mohamed Suleiman Mahmoud (1998) (14)" in determining the exact path of the skills and study the range of motion and speeds of angles and points and various body during the performance skills through biomechanics analysis.

Charts describe the sequence of motor skill under discussion:

The first stage:

- In which they are preparing for the skill to regress behind

the beginning of the movement from left to right.

Graph (1)



The second phase:

- It is the stage of touch through a three-step performance at one time (individual armed arm - tendency in front of the background of Onyx and transferring the back foot one step) with the beginning of the process of escaping with the trunk

Graph (2)



The third Phase:

It is the stage of escaping with the trunk and coverage by the sword.

Graph (3)



The fourth stage:

It is the stage of sequel escaping by spinning and complements the coverage by the sword.

Graph (4)



Thirdly and to achieve the third aim:

We find that it is clear from the tables (1.2, 3, 4.5, 6) and charts (1.2, 3, 4)

To determine the educational steps made through the following:

1-determine the stages of performance skill: as it has been divided into four phases: - (primary stage, a first basic stage, essential second phase, the final phase).

2. Identification of each stage time and the percentage of the performance of each stage of the overall performance of the skill ratio.

And it is evident from the tables (4, 3,2,1) as the full time to perform the skill of the counter-attack to close the distance and taking a second has been divided as follows:

2-1-The first stage: in a time of 0.28 second, preparing to perform the skill quickly 28% of the total time for the skill.

2.2-second stage in a time of 0.24 second that took 24% of the total time for the skill .2-2-**2-3-third stage:** in a time of 0:20 of the second lasted for 20% of the total time for the skill.

2-4-the fourth stage: the fourth stage in a time of 0.28 second has lasted for 28% of the total time for the skill.

3. Formulating educational steps and illustrate the most prominent aspects of each stage through the corners and points affecting the stage.

3.1 The first educational step: a retreat back and that the extent of horizontal to retreat per 16 cm, at $15 \text{ cadre} \times 0,04 = 0,6$ seconds (where training should be to retreat this distance and speed).

3-2 second educational step: a touch, made through moving the three parts of the body at the same time (unfolding the

arms with a penchant of the trunk with the transfer of the back foot backward) and **the description of each part are as follows: -**

3.2.1 unfolding arms (through the breakthrough of all particular facility until the straight line up and quickly got to the corner and with an average 216 479 degrees per second, and the shoulder joint, which reached 120.153 angle and an average speed of 451.262-degree angle in the second).

3.2.2 the tendency of the Onyx (through breakthrough pelvic angle between the thigh and side body 90.2 degree angle began and ended at 79 degrees)

3.2.3-transferring the back foot backwards (almost horizontal extent of 10 cm quickly and reached 3.5 meters per second).

3.3 Educational third step: closing the distance and escape with the trunk (and close the distance by not supplement retreat back after transferred back where not followed by the front foot and back foot but returned to the front once again a distance of 64 cm and speeds of 4.5 meters per second.

3-4- Educational fourth step: Escape supplement with the trunk by rotation Onyx in full roll to avoid attack rival as smoothly movement continue to supplement feet rotation and transfer of back foot forward for a way of planning skill with a capacity of up to 6.1 meters per second, and in the final status the players are side -by-side look at the same direction as a result of the player full course rotation.

This is consistent with the study of each of the " Ayman Fares Ahmed Musa (2006 m) (7), and Ibrahim Fawzi (2002 m) (2)" in reaching the formulation of educational steps for different skills through biomechanics analysis.

Conclusions:

The abstract of the research group of the steps have formulated a set of exercises used in the development of the performance of the skill under discussion

1 - Exercises to retreat behind the pace of its distance 16 cm quickly and 0.6 meters per second.

2 - Exercises to touch the object by unfolding the arm and during the background transfer of the back foot.

3. exercises to work closing to the distance through the transfer of half retreat behind the back of the foot and then it comes back to the front before the front backward supplement.
4. Training in rotation process with trunk and coverage by the sword.

Recommendations:

1. Dissemination of Educational steps to perform the skill under discussion in the clubs and bodies concerned.
2. Publication of Educational steps to perform the skill under discussion between the coaches through the Egyptian Fencing Federation.
3. Recommendation to the work of similar studies of the different skills that are not subject to kinematic analysis.

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