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The importance of having a motor analyst within the technical staff of competitive sports teams
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Abstract:

This study aimed to clarify the importance of the motor analyzer within the competitive sports teams, as it used the descriptive approach using a questionnaire consisting of 14 questions on a sample of 100 sports coaches from various disciplines. The motor helps to extract the motor errors of the athletes, which in turn helps in avoiding sports injuries, and the task of the motor analyst in analyzing the motor performance of the athlete helps in improving the motor performance of the athletes, which contributes to achieving higher sports results.

KEY WORDS: Kinetic Analysis; Motor Analyst; Sports Injuries; Motor Performance.

الملخص:

تهدف هذه الدراسة الى توضيح أهمية المحلل الحركي ضمن الفرق الرياضية التنافسية حيث استخدمت المنهج الوصفي باستخدام الاستبيان يتكون من 14 سؤال على عينة من 100 مدرب رياضي من مختلف التخصصات، استخدم في المعالجة الاحصائية حساب النسب المئوية وكذا اختبار كاف تربيع، توصلنا إلى نتائج تؤكد أن المحلل الحركي يساعد على استخراج الأخطاء الحركية لدى الرياضيين والتي بدورها تساعد في تفادي الاصابات الرياضية، كما أن مهمة المحلل الحركي في تحليل الأداء الحركي للرياضي تساعد في تحسين المردود الحركي للرياضيين مما يساهم في تحقيق نتائج رياضية أعلى.

الكلمات المفتاحية: التحليل الحركي، المحلل الحركي، الإصابات الرياضية، الأداء الحركي.

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1-Introduction:

Sport, in its definition, is an exercised activity, but its original content is a large number of sciences, and that is why specialists call it sports sciences, in order to combine it with various different and branching sciences in one template. The most important and important element in sports, which is the basis of all sports and the essence of success, is sports training, which is a group of regular sporting events that take a long time in order to progress and develop gradually and work to improve the functions of the individual and the game.

To find a professional player in any sport, whether collective or individual, who presents high skills and extraordinary performance is not absurd, but rather it is a result of years of work, standardized sports training, proper formation from childhood, and good motor learning that depends on various sciences.

To achieve the best results and obtain the sports result, it is necessary to reach the sports formula, which in turn can only be achieved through sports training based on scientific foundations that include physiology, psychology, biomechanics, sports medicine, kinesiology ... etc. All of these sciences develop the athlete. In all aspects, which are known as the aspects of sports training represented in: the physical, psychological, skillful, tactical, and tactical aspects (Madani, Sebaa & Guebli, 2018).

Modern sports training has defined different methods in evaluating sports movements for the development of athletes, and the most important of these methods is kinetic analysis, which is one of the basic foundations for evaluating the level of performance through which we can help the coach know the extent to which their approaches succeeded in achieving the required level, in addition to identifying weaknesses in performance And work on correcting them to raise the level of the players, so the dynamic analysis is considered the most honest scale in evaluation and guidance (Seghir, Mehidi & Reguig, 2018). Modern technology, especially video technology, intervenes to give a detailed picture of the sports movements, which gives important data to the motor analyst (Chakour, Mahour bacha & Hamak, 2018).

Obtaining the biomechanical determinants of sports movement makes athletic excellence dependent on developing the fine details of movement in order to save effort to achieve the same goal (Seghir, Mehidi & Reguig, 2018).

Therefore, we pose the following question :

- What is the importance of the presence of the kinetic analyst within the technical staff of the sports teams?

From this question, two sub-questions emerge:

- Is the motor analyst interested in extracting motor errors that help to avoid injuries?
- Is the motor analyst interested in improving the motor performance for the development of sports performance?

2- General objective of the study:

It is clear that every research has a goal that seeks the truth, and in our study, we aim to reach the extent of the importance of the kinetic analyzer within the sports teams and to know everything related to the kinetic analysis phenomenon. The objectives of the study are defining the concept of motor analysis and its importance in the sports field, knowing the importance of the motor analysis in sports training, knowing the role of motor analysis for sports skills in sports teams, knowing the importance of motor analysis in learning and motor control in various sports, predicting the future of motor analysis in Algeria to address it in the future Studies under the principle of cumulative and continuity in scientific research.

3- Procedural definition of the concepts mentioned in the research:

-Kinetic Analysis: he is a member of the technical staff specialized in kinetic analysis, relying on several sports sciences, such as biomechanics, in order to analyze sports movements

-Motor Analyst: a means of dividing the complete movement into parts and studying these parts accurately to reveal their details (Assamaidai, 1987, 19).

-Sports Injuries: can be defined as a pathologic process that interrupts training or competition and may lead the athlete to seek medical treatment (Michéo & Sánchez, 2018).

-Motor Performance: understood as the study of one or multiple cardinal motor symptoms, has been studied in a clinical setting, by means of wearable sensors and via apps (Xicoy, Vila & Laguna, 2021).

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4- The methodological procedures used in the study:4-1 Method and tools:

In this study, the descriptive approach was used and this is due to its relevance and the nature of the study. We conducted an exploratory study on coaches from various individual and team sports. The questionnaire tool was used as a tool for collecting information. Avoiding injuries and the role of the motor analyst in the development of sports performance, the questionnaire was presented to (3) three professors, arbitrators, and they approved the questionnaire (checking the veracity of the arbitrators), then the questionnaire was distributed to (10) coaches from various disciplines, and it was retrieved On the same day, after that, the validity and reliability of this questionnaire were calculated, as the kappa coefficient K was (0.82), while the reliability coefficient, Cronbach's alpha (α), was equal to (0.76). After confirming the validity and reliability of the questionnaire, it was distributed to the study sample consisting of one hundred (100) coaches from various sports. The questionnaire forms were distributed electronically and their data were collected within two days. For statistical treatment, percentages were calculated and the "K square" test was used, and this was done using the SPSS21 program.

4-2 Presentation and Analysis of Results:

Table N°1 shows the coaches' previous knowledge about motoranalysis in the sports field.

Khi 2	Khi 2	Degree	Significance	Observation
calculated	table	Freedom	Level	
125.78	5.99	2	0.05	*



Figure N°1 shows the percentage of previous knowledge of the coaches about motor analysis in the sports field

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Through Table N°1, which represents the extent of knowledge of the trainers about motor analysis in the sports field, it is clear to us that the percentage of trainers who answered "yes" amounted to (86%), which is the highest percentage of the answers, and those who answered "no" was estimated at (03%) It is the lowest percentage of answers, while those who answered "sometimes" amounted to (11%). Through the calculated k^2 value estimated at (125.78), which is greater than the tabular k^2 value estimated at (5.99), this means that it has a statistical significance at the degree of freedom (2) and the significance level (0.05). Through the results, it is clear to us that most of the trainers confirmed their previous knowledge of kinetic analysis in the sports field, and this is explained by the theoretical standards that they studied in their formations in the field of sports training, including kinetic analysis, as well as the urgent need for kinetic analysis to know sports errors and correct them to improve the performance of the individual to reach the highest levels and thus achieve sports score.

Table N°2 shows the importance of kinetic analysis in modern sports training, according to the coaches' opinion

Khi 2	Khi 2	Degree	Significance	Observation
calculated	table	Freedom	Level	
200	5.99	2	0.05	*



Figure N°2 shows the percentages of the importance of kinetic analysis in modern sports training, according to the opinion of the coaches

Through Table N°2, which represents the importance of motor analysis in modern sports training, it is clear to us that (100) coaches answered: Yes, with a percentage of (100%). Through the calculated k^2 value estimated at (200), which is greater than the tabular k^2 value estimated at (5.99), this means that it has a statistical significance at the degree of freedom (2) and the significance level (0.05). Through

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the results, it is clear to us that all the trainers agreed on the importance of the motor analyst in sports training, because of the teaching, evaluation and development of sports movements. Therefore, we see that kinesiology is the science that studies human motor performance in order to reach the performance to the highest level that human capabilities and energies allow (Alfadli & Hussein, 2019, 9).

Table N°3 shows the coaches' ability to work with a motor analyst, according to the trainers' opinion

according to the trainers opinion					
Khi 2 calculated	Khi 2 table	Degree Freedom	Significance Level	Observation	
116.48	5.99	2	0.05	*	



Figure N°3 shows the percentages of trainers' ability to work with a motor analyst, according to the coaches'opinion

Through Table N°3, which represents as a sports coach, do you have the ability to work with a movement analyst, it becomes clear to us that (84) coaches answered: Yes, with a percentage of (84%), which is the highest percentage of the coaches' answers, and (04) coaches answered: No, with a percentage estimated at (04%), which is the lowest percentage of the trainers' answers. (12) trainers answered: "Sometimes" with a percentage of (12%). Through the calculated k^2 value estimated at (116.42), which is greater than the tabular k^2 value estimated at (5.99), this means that it has a statistical significance at the degree of freedom (2) and the significance level (0.05). Through the results, it is clear to us that the majority of trainers have the ability to work with a motor analyst during sports training, because the motor analyst helps the coach and facilitates the process of extracting sports errors and thus correcting sports movements while facilitating the process of motor learning for athletes through motor analysis and cinematic presentation of the movement, and thus he provides

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additions Great for the athletic trainer which is why they are so workable.

Table N°4 shows the coaches' view of the role of the motor analyst, according to the trainers' opinion

Khi 2 calculated	Khi 2 table	Degree Freedom	Significance Level	Observation
200	5.99	2	0.05	*
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Figure N°4 shows the percentages of the trainers' view of the role of the motor analyst, according to the coaches'opinion

Through Table N°4, which represents, in your opinion, does the motor analyst have a role, it becomes clear to us that the coach answered with: positive, with a percentage of (100%). Through the calculated k^2 value estimated at (200), which is greater than the tabular k^2 value estimated at (5.99), this means that it has a statistical significance at the degree of freedom (2) and the significance level (0.05). Through the results, it is clear to us that all coaches see that the kinetic analyst has a positive role within the sports teams, and this is explained by the work that the kinetic analyst does in terms of kinetic education, analyzing sports movements, extracting kinetic errors, and working on evaluating and correcting them, while contributing to avoiding sports injuries resulting from wrong implementation. for movement.

Table N°5 shows the extent to which coaches use some rules of motor analysis during sports training, according to the coaches'

Khi 2	Khi 2	Degree	Significance	Observation
calculated	table	Freedom	Level	
64.22	5.99	2	0.05	*

opinion

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Figure N°5 shows the percentages of the coaches' use of some rules of motor analysis during sports training, according to the coaches' opinion

Through Table N°5, which represents whether some rules of motor analysis are used during sports training, it is clear to us that (71) coaches answered: Yes, with a percentage of (71%), which is the highest percentage of the coaches' answers, and (17) coaches answered: No, with a percentage estimated at (17%), (12) trainers answered: sometimes, with a percentage of (12%), which is the lowest percentage of the trainers' answers. Through the calculated k² value estimated at (64.22), which is greater than the tabular k^2 value estimated at (5.99), this means that it has a statistical significance at the degree of freedom (2) and the significance level (0.05). Through the results, it is clear to us that the majority of trainers use some rules of kinetic analysis during sports training, and this explains that kinetic analysis is an integral part of modern sports training, especially in the process of learning and motor control using motor learning theories, including the theory of motor programs (open circles) and Adam's theory of impact Sensory (closed circuit theory) (Metaib, 2004).

Table N°6 shows the coaches' view of the presence of the motor analyst as an essential element in the technical staff of the sports teams, according to the coaches' opinion

Khi 2	Khi 2	Degree	Significance	Observation
calculated	table	Freedom	Level	
176.78	5.99	2	0.05	*

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Figure N°6 shows the percentages of the coaches' view on the presence of the kinetic analyst as an essential element in the technical staff of the sports teams, according to the coaches' opinion

Through Table N°6, which represents the kinetic analyzer as an essential element in modern training, it becomes clear to us that (96) trainers answered: Yes, with a percentage of (96%), which is the highest percentage of the trainers' answers, and (01) trainers answered: No, with a percentage estimated at (01%), which is the lowest percentage of trainers' answers, (03) coaches answered: sometimes, with a percentage of (03%). Through the calculated k^2 value estimated at (176.78), which is greater than the tabular k^2 value estimated at (5.99), this means that it has a statistical significance at the degree of freedom (2) and the significance level (0.05). Through the results, it is clear to us that the majority of trainers see that the motor analyst is an essential element in modern training, and this is due to the importance of motor analysis in sports training, as it provides us with accurate information that is the best important means in achieving the motor goal. This information is necessary in helping coaches in judging movement. And understanding its parts and components and knowing the complex motor paths of the skill as well as accelerating the learning process and reaching the correct technique (Kharbit & Nadjah, 1992, 415).

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Table N°7 shows the extent to which sports training in Algeria is based on movement analysis and analysis, according to the coaches' opinion

Khi 2 calculated	Khi 2 table	Degree Freedom	Significance Level	Observation	
82.88	5.99	2	0.05	*	



Figure N°7 shows the percentages of the extent to which sports training in Algeria depends on the analysis and the motor analyst, according to the opinion of the coaches

Through Table N°7, which represents whether sports training in Algeria depends on the analysis and the motor analyst, it becomes clear to us that (08) coaches answered: Yes, with a percentage of (08%), which is the lowest percentage of the coaches' answers, and (76) coaches answered: No, with a percentage estimated at (76%), which is the lowest percentage of the trainers' answers. (16) trainers answered: "Sometimes," with a percentage of (30%). Through the calculated k^2 value estimated at (176.78), which is greater than the tabular k^2 value estimated at (5.99), this means that it has a statistical significance at the degree of freedom (2) and the significance level (0.05). Through the results, it is clear to us that the majority of coaches find that sports training in Algeria does not depend on analysis and the motor analyst.

Table N°8 shows the importance of analyzing and dividing movement in avoiding sports injuries among athletes, according to the opinion of coaches

Khi 2	Khi 2	Degree	Significance	Observation
calculated	table	Freedom	Level	
63.86	5.99	2	0.05	*

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Figure N°8 shows the importance of analyzing and dividing movement in avoiding sports injuries among athletes, according to the coaches' opinion

Through Table N°8, which represents the analysis of movement and its division helps to avoid injuries, it is clear to us that (71) coaches answered: Yes, with a percentage of (71%), which is the highest percentage of the coaches' answers, and (14) coaches answered: No, with a percentage estimated at (14%), which is the lowest percentage of coaches' answers, (15) trainers answered: sometimes, with a percentage of (15%). Through the calculated k² value estimated at (63.86), which is greater than the tabular k² value estimated at (5.99), this means that it has a statistical significance at the degree of freedom (2) and the significance level (0.05). Through the results, it is clear to us that the majority of coaches believe that the division of movement and its analysis helps to avoid injuries, because the movement division allows the observation of sports errors that lead to and allow the occurrence of certain injuries. Practicing sports movements (Djamel, 1999, 22).

Table N°9 shows the importance of the accurate scientific study of movement in understanding the cause of sports injuries, according to the opinion of the coaches

Khi 2 calculated	Khi 2 table	Degree Freedom	Significance Level	Observation
45.26	5.99	2	0.05	*
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Figure N°9 shows the percentages of the importance of the accurate scientific study of movement in understanding the cause of sports injuries, according to the opinion of the coaches

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Through Table N°9, which represents the accurate study of movement that helps to understand the cause of sports injuries, it becomes clear to us that (64) coaches answered: Yes, with a percentage of (64%), which is the highest percentage of the coaches' answers, and (25) coaches answered: No, with a percentage estimated at (25%), (11) trainers answered: sometimes, with a percentage of (11%), which is the lowest percentage of the trainers' answers. Through the calculated k^2 value estimated at (176.78), which is greater than the tabular k^2 value estimated at (5.99), this means that it has a statistical significance at the degree of freedom (2) and the significance level (0.05). Through the results, it is clear to us that the careful study helps to understand the cause of sports injuries and the analysis of sports movements, and thus the possibility of identifying and discovering errors, and thus knowing the cause of injuries.

Table N°10 shows the relationship between knowing the basics of movement and avoiding sports injury, according to the opinion of the coaches

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Khi 2	Khi 2	Degree	Significance	Observation	
calculated	table	Freedom	Level	Observation	
45.26	5.99	2	0.05	*	



Figure N°10 shows the percentages of the relationship between knowing the basics of movement and avoiding sports injury, according to the opinion of the coaches

Through Table N°10, which represents the knowledge of the kinetic foundations that are directly related to avoiding injury, it becomes clear to us that (65) trainers answered: "Yes," with a percentage of (65%), which is the highest percentage of the trainers' answers, and (19) trainers answered: "No," with a percentage estimated at (19%), (16) trainers answered: sometimes, with a percentage of (16%), which

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is the lowest percentage of the trainers' answers. Through the calculated k^2 value estimated at (45.26), which is greater than the tabular k^2 value estimated at (5.99), this means that it has a statistical significance at the degree of freedom (2) and the significance level (0.05). Through the results, it is clear to us that knowing the basics of movement has a direct relationship in avoiding sports injury, through the proper implementation of the movement while following the stages of movement learning and respecting the laws and path of movement, which results in movements that are characterized by smoothness and beauty (Maynel, 1976), where the movement in this case minimal injuries.

Table N°11 shows the role of the motor analyst in avoiding sports injuries, according to the opinion of the coaches

Khi 2	Khi 2	Degree	Significance	Observation
calculated	table	Freedom	Level	
99.50	5.99	2	0.05	*



Figure N°11 shows the percentages of the role of the kinetic analyst in avoiding sports injuries, according to the opinion of the coaches

Through table N°11, which represents a role for the kinetic analyst in avoiding sports injuries, it becomes clear to us that (80) coaches answered: Yes, with a percentage of (80%), which is the highest percentage of the coaches' answers, and (05) coaches answered: No, with a percentage estimated at (05%), which is the lowest percentage of trainers' answers, (15) trainers answered: sometimes, with a percentage of (15%). Through the calculated k^2 value estimated at (99.50), which is greater than the tabular k^2 value estimated at (5.99), this means that it has a statistical significance at the degree of freedom (2) and the significance level (0.05). Through the results, it is clear to us that the kinetic analyzer has a role in avoiding sports injuries, as the kinetic sports analyst helps to understand the movements that he

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performs, which helps to perform them in a proper manner, as well as avoiding accidents and injuries. Mahboub (1987) believes that the motor analyst detects motor errors and identifies the causes and time of their occurrence, and thus avoids injuries.

Table N°12 shows the importance of correct movement learning in avoiding sports injuries, according to the coaches' opinion

Khi 2	Khi 2	Degree	Significance	Observation
calculated	table	Freedom	Level	
82.16	5.99	2	0.05	*



Figure N°12 shows the percentages of the importance of correct learning of the movement in avoiding sports injuries, according to the opinion of the coaches

Through Table N°12, which represents the correct learning of the movement, resulting in healthy movements free of injuries, it is clear to us that (76) coaches answered: Yes, with a percentage of (76%), which is the highest percentage of the coaches' answers, and (14) coaches answered: No, according to an estimated percentage. With (14%), which is the lowest percentage of the trainers' answers, (10) trainers answered: sometimes, with a percentage of (10%). Through the calculated k^2 value estimated at (82.16), which is greater than the tabular k^2 value estimated at (5.99), this means that it has a statistical significance at the degree of freedom (2) and the significance level (0.05). Through the results, it is clear to us that the correct learning of the movement brings the athlete to the stage of precise harmonic stabilization, in which the movement is fast and controlled and appears smoothly and high, as well as stability in the movement weight as well as in the force used (Maynel, 1976), which results in injury free movements.

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Table N°13 shows the importance of extracting kinetic sports errors in avoiding injuries, according to the opinion of the coaches

Khi 2	Khi 2	Degree	Significance	Observation
calculated	table	Freedom	Level	
129.62	5.99	2	0.05	*



Figure N°13 shows the percentages of the importance of extracting motor sports errors in avoiding injuries, according to the opinion of the coaches

Through table N°13, which represents whether extracting motor sports errors helps to avoid injuries, it is clear to us that (87) coaches answered: Yes, with a percentage of (87%), which is the highest percentage of the coaches' answers, and (7) coaches answered: No, with a percentage estimated at (07%), (06) trainers answered: sometimes, with a percentage of (06%), which is the lowest percentage of the trainers' answers. Through the calculated k² value estimated at (129.62), which is greater than the tabular k² value estimated at (5.99), this means that it has a statistical significance at the degree of freedom (2) and the significance level (0.05). Through the results, it is clear to us that the extraction of kinetic sports errors helps to understand the shortcomings and causes of sports injuries, and thus work to remove errors by correcting and improving them, and thus avoiding sports injuries.

Table N°14 shows that the wrong implementation of the movement is one of the main causes of sports injuries, according to the opinion of the coaches

Khi 2	Khi 2	Degree	Significance	Observation
calculated	table	Freedom	Level	
120.68	5.99	2	0.05	*

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Figure N°14 shows the percentages of the coaches' view that the wrong implementation of the movement is one of the main causes of sports injuries, according to the coaches' opinion

Through Table N°14, which represents one of the main causes of sports injuries, which is learning and the wrong implementation of the movement, it becomes clear to us that (85) coaches answered: "Yes." with a percentage of (85%), which is the highest percentage of the answers, and (11) coaches answered: "No," with a coaches' percentage estimated at (11%), (04) trainers answered: sometimes, with a percentage of (04%), which is the lowest percentage of the trainers' answers. Through the calculated k² value estimated at (120.68), which is greater than the tabular k^2 value estimated at (5.99), this means that it has a statistical significance at the degree of freedom (2) and the significance level (0.05). Through the results, it is clear to us that the wrong implementation of the sports movement results in stiff or weak performance as a result of using more force than required or less than required with insufficient motor transmission or the occurrence of errors in it (Maynel, 1976), Thus, the lack of mastery of the motor performance sequence is a reason for the injuries.

4-3 Discussion and interpretation of the results:

After analyzing the results related to the first partial hypothesis, it was achieved by studying the interpretations of questions N° 8 to 14 of the questionnaire, as some believe that the second goal of the kinetic analyst in the sports field is to contribute to the rehabilitation process and then prevent or prevent injury, but we say that this goal should be the first and not the second. The study and analysis lead to deepening the understanding of the coaches, teachers, as well as the practitioners of the details and paths of the movements and the correct ways and methods to teach and perform them and how to develop them, and thus it is possible to eliminate the errors that lead to many injuries associated with some competitions and sports activities, repeated kinetic errors may lead to postural deviations of varying severity for the athlete (Rezagui, Boutalbi & Haceini, 2022). This is in addition to contributing to the development of preventive exercises for

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injury for each type of motor activity, such as preventive or mitigating exercises for knee or foot joint injury or elbow joint injury. It also contributes to identifying the causes and conditions that lead to injury. Where the kinetic analysis is a source for providing workers in the sports field with established facts that support their decisions regarding the correct technique, Reducing the chances of injury to performers and players when practicing sports movements (Bouabdellah, Terki & Mouissi, 2014). We say once again that movement analysis and biomechanics can provide us with the basis for modifying or changing techniques, tools, exercises, for preventing or preventing injury, as well as in and after rehabilitation operations. From this we conclude that the extraction of motor errors helps to avoid sports injuries among competitive athletes.

After analyzing the results related to the second partial hypothesis, it was achieved by studying the interpretations of questions N° 1 to 7 of the questionnaire. It is no longer sufficient to reach the highest levels of athletic achievement, because in elite sports the smallest margins play a major role in winning or losing, so it is necessary to focus on the term most prepared, and therefore work to improve movement and correct the way it is learned, such as diversification in quantitative and qualitative feedback (verbal, written, pictures) (Abdelfettah, 2016), correcting the errors committed necessarily leads to improving and controlling the performance of the sports movement, as kinesiology is the science that studies the human motor performance in order to reach the highest level of human capabilities and energies, less effort and time (Djabali, Hafidi & Benhamed, 2021). The use of modern technology in motor learning has contributed to the acquisition of correct and sound skills in various sports, as filming movement and watching the learner how to accomplish it with stages and how to perform it correctly, this information is necessary in helping coaches judge movement, understand its parts and components, and know the complex motor paths of the skill as well (Bessenouci & Haceini, 2019). Speeding up the education process and reaching the correct technique, as it helps the player to have a proper perception of the movement (Chelche & Kharbit, 1992, 415) which contributes to the development of the motor side of the athletes. From this we conclude that improving the performance of sports movement leads to improving the athletic performance of competitive athletes. The results obtained by the

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motor analyst from the motor errors of the athlete can be combined to be corrected according to the method of mental visualization. Several studies (Kezkouz, Bensmicha & Madani, 2016; Benroukia, 2018) have proven the effectiveness of this technique in improving the motor performance of athletes, at the end of the process, motor coordination is established at a high level of motor performance (Meddour, Assam & Ould ahmed, 2021).

Conclusion:

In this study, we touched on one of the requirements for training in the field of sports, which were recorded recently, in the major sports teams, whatever the type of sports activity, whether individual or collective, as we worked to highlight the importance of the effective role of the motor analyst within the competitive sports teams. This study came in which we set out to formulate a set of issues, then we followed it up with hypotheses, and it has been accomplished.

Conducting a field study through a theoretical study in which we dealt with the most important aspects surrounding the subject of motor learning, its stages and its motor analysis on competitive sports teams. As for the field study, we followed the scientific principles by selecting a sample to conduct the field study. Therefore, we used the information collection tool represented in the questionnaire that was presented to the various trainers in terms of presenting and analyzing the results that were reached according to the scientific and methodological methods that enable us to prove the validity of the hypotheses that we put forward. at the beginning of the year. Finally, we came to the conclusion that the kinetic analyst has an important role in sports teams, the kinetic analysis of sports and its evaluation is the basic structure of science.

Helps workers in the field of physical education to understand the importance of movement analysis in the field of sports. As we have seen, through this research, we were able to reach objective results, as we overcame some of the difficulties and obstacles in order for this research to come out definitively, and we hope in the end that this study will find a place for it in the ranks of scientific research. Sports are part of it. Through the course of this research and based on the importance of the results that we have reached, we see that we have to make some recommendations that may be of benefit to those in charge of the sports field and this is in order to further improve the level of the components and elements of the sports system in general, in

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various and various disciplines and games where relying on The movement analysis and analyst in the process of sports training and movement education has become a necessity through the opening of job positions for the movement analyst at the level of sports teams so that he can use technological means to reduce injuries and improve motor performance without neglecting the scientific part by opening specializations in the field of science and techniques of physical activities And sports pertaining to kinesiology and biomechanics.

It is necessary to pay attention to the kinetic aspect in competitive sports teams, especially in team sports, in which the kinetic aspect has become almost completely non-existent. In addition, students of science and techniques of physical and sports activities are interested in practicing activity by studying both kinesiology and biomechanics because of its great importance at the level of sports training through conducting Similar studies for different whether at the level of institutes or teams and sports clubs.

References used in the research: Books:

جمال علاء الدين، 1999، علم الحركة، دار المعارف، ج1، ط9، مصر. ريسان خربيط و نجاح مهدي،1992، التحليل الحركي، دار الثقافة للنشر والتوزيع، ط1، الأردن. سامر يوسف متعب، 2004، تأثير منهج تعليمي لتصميم البرامج الحركية في تعلم مهاره المناورة والتصويب بكره اليد والتصرف الحركي للأشبال، أطروحة دكتوراه، كلية التربية الرياضية، جامعة بغداد، العراق.

صريح عبد الكريم الفضلي و ايهاب داخل حسين، 2019، علم الحركة التطبيقي (الكينيسولوجيا)، الأكاديمية الرياضية العراقية، العراق.

لؤي غانم الصميدعي،1987، البيوميكانيك في الرياضة، مديرية الكتب للطباعة والنشر، العراق. ماينل ترجمة عبد علي نصيف، 1976، التعلم الحركي، مديرية الكتب للطباعة والنشر، العراق. وجيه محبوب، 1987، التحليل الحركي، مطبعة التعليم العالي، ط2، العراق.

Michéo, G. & Sánchez, A. (2018). Rehabilitation in Musculoskeletal and Sports Injuries in Older Adults. Geriatric rehabilitation, Chap12. Ed Elsevier, 161–168.

Xicoy, H., Vila, M., & Laguna, A. (2021). Systems Medicine in Parkinson's Disease: Joining Efforts to Change History. Systems medicine

Chergui, B., Melouk, K., Saghi, A.

integrative, qualitative and computational approaches. Ed Elsevier, Vol 2, 1–14.

Magazines, periodicals and newspapers:

Bessenouci, H., & Haceini, A. (2019). Analyse de certaines variables biomécaniques influençant la précision des coups francs directs au football. *Méthodes informatiques en biomécanique et génie biomédical*. 22(sup1). 340-342.

Meddour, C., Assam, S. & Ouldahmed, O. (2021). Study of the correlation between general motor coordination and the visuospatial component of working memory in children. *L'exellence journal sciences techniques de l'activité physique et sportive*. 6(2). 172-192. بن رقية عابد، (2018). أثر برنامج تدريب عقلي مقترح في تنمية بعض المهارات بلعقلية و تحسين مهارة التصويب الأمامي وتطوير مستوى التفكير الخططي الهجومي لدى لاعبي كرة السلة. مجلة تفوق في علوم وتقنيات النشاطات البدنية والرياضية. 3(1). 144-

بوعبد الله سبع، أحمد تركي، فريد مويسي، (2014). بيوميكانيك وتحسين الأداء الرياضي في سباق 100م. مجلة الابداع الرياضي. 5(2). 291-296.

جبالي رضوان ، حفيظي منيب ، بن حامد محمد ، (2021). تطبيق المكتسبات البيوميكانيكية في تطوير المهارة الرياضية. مجلة العلوم الإنسانية والاجتماعية. 9(2). 425-411.

رزاقي حمزة، بوطالبي بن جدو و حسايني أيوب، (2022). عرض بطاقة ملاحظة مقترحة للكشف عن واقع الصحة القوامية بمعاينة تلاميذ الطور المتوسط بالجزائر. مجلة تفوق في علوم وتقنيات النشاطات البدنية والرياضية. 7(1). 131-140.

رقيق مداني، سبع بوعبد الله، قبلي عبد القادر، (2018). تحليل العلاقة بين بعض المتغيرات الكينماتيكية للبدء في السباحة الحرة. مجلة العلوم والتكنولوجية للنشاطات البدنية والرياضية. 15(3). 140-132.

شاقور العربي، ماهور باشا مراد و حامق بغداد، (2018). أثر برنامج مقترح باستخدام تقنية الفيديو في اكتساب مهارة التنطيط وسرعة التنقل عند ناشئي كرة اليد صنف أقل من 13 سنة (10-12) سنة. مجلة تفوق في علوم وتقنيات النشاطات البدنية والرياضية. 1(3). 183-174.

صغير نور الدين، مهيدي محمد و رقيق مداني، (2018). المحددات الميكانيكية للمستويات العالية في سباق -100م- بالبطولة العالمية2009 بألمانيا دراسة مسحية مقارنة بين العدائيين الأوائل Tyson. Gay- Asafa.pawoul- usain.bolt، مجلة تفوق في علوم وتقنيات النشاطات البدنية والرياضية. 2(3). 84-84.

قزقوز محمد، بن سميشة العيد و مداني محمد، (2016). تأثير التدريب العقلي على تنمية بعض المهارات العقلية وتعلم بعض المهارات الأساسية في الكرة الطائرة. مجلة تفوق في علوم وتقنيات النشاطات البدنية والرياضية. 1(1). 149-175.