



Search information

Received 07/01/2024
Accepted 30/03/2025

Printed ISSN: 2352-989X
Online ISSN: 2602-6856

The effect of a mental training program on the mental perception process among national elite chess players

¹Abderrahmane Djaroub ²Ahmed Hezloun

¹ University khmis melaina ,Health and performance laboratory , Algeria,
abderahmane.djaroub@univ-dbkm.dz

² Higher Institute of Sports and Physical Education, Qasr Said , Manouba University, Tunisia ,
ahmed.hezloun.sticode@issep.uma.tn

ABSTRACT

The study aimed to determine the effect of the Christian Tarqt program for mental training on the process of mental perception among the players of the National Chess Club. The study was conducted on a sample consisting of 12 players of the national chess elite who were chosen intentionally. The researchers used the experimental method with a single sample design in order to suit the nature of the study. The most prominent results are as follows: There are statistically significant differences between the pre-measurement and the post-measurement of the mental visualization process in favor of the post-measurement attributed to the mental training program of Christian Targat, where the percentage of effect was 96%. This is a very high percentage.

Keywords: The mental training-The mental perception-The Chess.

1. The general framework of the study:

1.1 Introduction and problem of the study:

Some may think that the topic of mental training is one of the recent topics that has excited scholars in the field of sports psychology, but in reality it is confirmed that the beginning of interest in it dates back to the year (1916) after the publication of the book (Washburn-Washborn) on the relationship between perception and movement. The first scientific work in this field appeared by Gacbson in 1932, where he confirmed the presence of muscle contractions during motor visualization through the use of an electromyography device and proved that there is development of motor skills with groups with long experience of players (Osama Kamel Rateb, 2005, Page 30)

Most international athletes emphasize taking advantage of their specific mental skills, but they did so through trial and error, and many of them say that they would have been able to achieve the highest levels at the beginning of their sporting career if they had learned those skills instead of having to take this difficult path. Mental skill is important in performing skills, as it is what enables the athlete to reach a mental state that prevents negative thoughts from entering his sporting activity. (Mustafa and Samir, 1999, p. 10)

Hence, the beginning of the problem of the study was to provide a mental training program, as modern sports training programs pay attention to the psychological preparation of players, considering that psychological preparation is skills that need to be trained and go hand in hand with training physical abilities and sports skills. The result is that we notice that some players possess psychological abilities and skills that help them cope with pressure. and focus attention; Setting goals that address the challenge but in a realistic manner; The mental visualization of performing their skills in competition accurately.(Osama Kamel Rateb, 2005, page 30)

In order to develop a player in the game of chess in order to gain advantage on the competition board, he must deal with unfamiliar playing styles. He must rely on the strategy drawn up by him, which aims to immediately compete in a good planning manner to determine the locations that will reveal the weak points in his competitor's homeland and good possession of the weak squares or pawns that will strengthen his comprehensive strategy. This is one of the best methods that you can develop to support the player in order to acquire this. The mentality is one in which he is constantly looking for victory; It must be an attitude that fuels the player in order to set goals and realize them during competition.(Logan, 2015, p37)

Hence, the researchers comes to the general question of the study:

Are there statistically significant differences between the pre-measurement and the post-measurement of the mental imagery process among national elite chess players?

1.2 The general hypothesis of the study:

- There are statistically significant differences between the pre-measurement and the post-measurement of the mental imagery process among national elite chess players

1.3 Objectives of the study:

The study aims to:

- Identify the impact of a program to train the mind on practical mental perception among national elite chess players.
- Proposing a mental training program to develop the level of mental processes among national elite chess players.

1.4 the importance of studying:

Preparing programs in the field of mental training occupies special importance due to the strong discrepancy between the requirements of mental aspects of activities, especially in competition conditions. The importance of the current study lies in presenting a proposed program for mental training to develop the process of mental visualization and applying these skills in mental training in the form of competition, as this stage requires continuous evaluation in order to develop the pre-competition and during-competition skills of the national elite chess players, and to ensure that the required degree is reached to master and employ these important mental skills in the game of chess, which results in contributing to developing the level of performance and preparing for competitions.

1.5 Reasons for choosing the topic:

There are several reasons for choosing the subject of the study, some of which are subjective and some of which are objective, as follows:

Subjective causes:

The researchers's desire to delve into such topics related to mental training, the researchers's inclination to the game of chess by playing it in his spare time, and the researchers's interest in developing some of the mental skills required by the chess skill in order to raise the level of performance among the national chess elite players, which in turn is considered a mental game par excellence, in addition to the great motivation from the supervising professor to try to present a proposed integrated training program and present it as a reference for researchers.

The effect of a mental training program on the mental perception process among national elite chess players

Abderrahmane Djaroub, Ahmed Hezloun

Objective reasons:

Providing a mental training program that includes mental visualization, concentration, and relaxation skills in order to developThe process of mental visualizationIn order to raise the level of performance among the national chess elite.

Highlighting the role of mental training in preparing players in various sports fields, whether physical, skill, or mental game, because of its importance in integrating aspects of athletes' preparation.

1.6 Terms and concepts:

Mental training:

Terminologically:Unthal knewUnestal defines mental training as: regular, long-term training of mental skills and attitudes that includes two basic dimensions: reaching high athletic levels and developing will.

As for Muhammad Al-Arabi, he points out that mental training is the strategies by which mental skills are used in an attempt to develop performance, and it can include many processes within this method of training.¹² (Mohamed and Magda, 2007, p78)

Procedurally:It is a program proposed for mental training by the researchers that relies on mental visualization, relaxation, and concentration in order to raise the level of performance by developing some mental processes (mental visualization, decision making, and tactical thinking) among the national elite chess players.

Mental visualization:

Terminologically:Mental visualization means embodying and recalling previous movements and experiences that have not previously occurred in the mind. The issue of mental visualization emerges as one of the short-term psychological preparation processes. (Ali Hussein Hashem, 2020, page 24)

Procedurally:It is a mental skill that can be acquired through training, which helps the player recall previously acquired information or new information.

Chess:

Terminologically:A mental, cultural and civilizational game that develops mental abilities and trains patience, perseverance and good planning. A chess match is a competition between two players, one of whom plays with the white pieces and the other plays with the black pieces. Each team consists of 16 pieces, each with its own shape and way of moving on the board. (UAE Federation, 2000, p. 02)

Procedurally:It is a mental game par excellence that relies on the total mental skills acquired by elite national chess players

1.7 Previous, similar and related studies:

Study **Reguig Saad**, 2016, Volume 03, Issue 01, scientific article, Mathematical System Magazine, entitled The effect of mental training on the performance of the standing shooting skill in basketball, The researchers used the experimental method, As for the conclusions and recommendations of the research, they are: Concerning the conclusion: - The mental training approach is one of the modern and influential approaches among the sample due to the use of the process of mental imaging and focusing attention. Among the most important recommendations we mention: - It is possible to benefit from the mental training curriculum prepared by the researchers and generalize it to the rest of the other skills in this game..

Study **Orabi Sheikh, Bin Al-Din Kamal, Khaloul Ghanaian**, 2021, Volume 13, Issue 02, scientific article, Al-Tahadi Magazine, entitled For mental training and its reflection on physical load levels from the point of view of football players -u19-, The sample included (45) players from some teams in the Southwest Inter-League Division. The sample was selected in the intended manner. The descriptive approach was adopted as a method of study, The study concluded that there is a strong relationship between mental training and psychological load from the point of view of the players, and there was an average level of physical load among the members of the study sample. This is the result of full attention to the skill of mental training as it constitutes the basic foundation for success and achieving the best results.

Study **Afroghan Nabil**, 2014, Volume 06, Issue 01, scientific article, Academy for Social and Human Studies, entitled Visualization and mental training: techniques and how to apply them in the sports field Where the study found Finally, to know the place of visualization in mental training by adopting it in mental training techniques. We extracted three categories of mental training techniques: relaxation techniques, meditation and thinking techniques, and finally mental preparation techniques. Although mental visualization is used as a technique in mental preparation techniques, its adoption is essential in relaxation techniques, as well as meditation and contemplation..

Study **Muhammad.Qaqzouz, Al-Eid. bin. Smisha, Muhammad Madani**, 2016, Volume 01, Issue 01, Scientific Article, Excellence Magazine in the Sciences and Techniques of Physical Activities and Sports, entitled The effect of mental training on developing some mental skills and learning some basic skills in volleyball, The researchers decided to study this problem by using mental training as a means to accompany skill education and improve the educational process for the better. From this standpoint, and in order to keep

The effect of a mental training program on the mental perception process among national elite chess players

Abderrahmane Djaroub, Ahmed Hezloun

pace with modern trends in the educational process, the researchers tried to contribute to solving this problem by preparing a program for mental training accompanying skill education in order to raise the level of students in terms of the skills under discussion in volleyball..

Study **My Arab sender, Brahim Kaddour**, 2022, Volume 14, Issue 01, scientific article, Al-Tahadi Magazine, entitled *The effect of mental training on developing neuromuscular coordination and the nature of its relationship to developing the skill of crushing the ball for young volleyball players.*, It has been used The experimental approach was applied to a sample of 24 players in an intentional manner, with 12 players as an experimental sample to which the training program was applied using the mental training strategy. My father lasted for a period of 8 weeks during the first competition period, where in this program we relied on the mental training method, which contains a set of exercises that are similar to real competition situations. The most prominent results of this study are: It facilitates learning, acquiring and mastering the basic skills in the sport of volleyball, especially for young people and children. It is also recommended to adopt stand-up training programs because of its benefit in improving the level of achievement..

Study **Bin Ruqaya Abed**, 2015, Volume 04, Issue 02, Scientific Article, Journal Science and practices of physical, sporting and artistic activities, titled *The effect of a proposed mental training program on developing some mental skills and improving the skill of forward shooting in basketball*, The study sample consisted of (20) players from the Olympic City Relizane Cubs basketball team. The researchers used the experimental method due to its suitability to the nature of this study in the manner of the experimental and control groups., The results showed that there were significant differences between members of the experimental and control groups in the post-measurement of forward aiming and mental skills, and in favor of the experimental group that used the mental training program. The researchers recommended using the mental training program with skill training in teaching the shooting skill because of its importance in raising the level of skill performance.

2.The practical aspect of the study:

2.1 Field procedures for the study:

Survey:

The exploratory experiment is a mini-experiment of the main experiment. Its purpose is either to reveal some scientific facts or to test the work to reveal the obstacles and negatives facing the implementation of the main experiment or for the purpose of training some of the cadres assisting in the work (Haider and Kadhim, 2015, p. 128)..

The researchers interviewed players and player coaches of the national chess elite in order to:

- Preparing documentsThe necessary knowledge to facilitate the conduct of the study.
- Planning the training program accordinglyA calendar of competitions and goals.
- Preparing the necessary documents to provide equipment in addition to scheduling training times.

The researchers also interviewed the research sample in order to get to know them, prepare them psychologically, and explain the standards that we will apply to them, in addition to determining their level and identifying their abilities.

2.2 Study Approach:

It is the approach that attempts to explain phenomena by collecting data through observations. It is defined as the objective observation of a specific phenomenon in the mathematical field that occurs in a situation characterized by strict precision and includes one or more diverse variables while the other variables are fixed. (Marwan Abdel Majeed, 2000, p. 136).

The researchers used the experimental methodology with a single sample design with pre- and post-measurement due to its suitability to the nature of the study.

2.3 Study population:

The study population consisted of 80 chess players.

2.4 The study sample:

The sample is considered one of the most important axes that the researchers uses during his research. Choosing the sample well and appropriately helps to reach results with high credibility and reliable efficiency. (Boudaoud, 2009, page 67) 12 players were chosen intentionally after the administrative facilities of those responsible for their training.

2.5 Study variables:

The most important duty facing the researchers when he memorizes the experiment is his ability to control all study variables in order to isolate the study variables, as the variables were controlled as follows:

Independent variable:

Sometimes called the experimental variable. Experimental Variable: It is the variable that the researchers assumes is the cause or one of the causes for a certain result, and studying it may lead to knowing its effect on another variable.⁶ In the current study, it is the training program for mental training, which consists of a set of exercises: mental visualization, relaxation, and concentration of attention. Which is applied to an experimental sample of 12 players from the national chess elite.

Dependent variable:

It is the factor whose effect results in the independent factor and is also called the resulting factor or the resulting variable. (WajihMahjoub, 2005, p. 219) and in the current study it represents: The process of mental perception among elite national chess players.

2.6 Fields of study:

Spatial domain:

The researchers conducted the training program. Mental On players in state associations that contain elite national chess players.

Temporal domain:

By time frame, we mean the time allocated to conduct the current study. The general framework of the study was launched in October 2020³M.

- A training program was implemented for the study. Starting in the middleMonthOctober2023 AD.

The results of the study were analyzed and discussed. At the end ofMonthDecember2023 AD.

Human domain:

The research sample consisted of 12A player from the national chess elite who practices senior chess.

2.7 Tools used in the study:

Reiner Martens' Mental Visualization Scale:

Scale description:

The scale of mental imagery in the sports field, in its initial form, includes four sporting situations: individual practice, practice with others, watching a colleague, and performance in competition. These situations are

The effect of a mental training program on the mental perception process among national elite chess players

Abderrahmane Djaroub, Ahmed Hezloun

responded to on the basis of the six dimensions of mental imagery. Accordingly, the scale of mental imagery in the sports field contains: (24) paragraphs that are answered according to the five-point Likert scale, and the paragraphs have numbers (1, 7, 13, 19). You measure Visual mental perception, and paragraphs with numbers (2, 8, 20, 14) It measures auditory mental imagery, and the paragraphs have numbers 3), 9, 15, and (21). It measures sensory-motor mental imagery, and the paragraphs have numbers. 4), 10, 16, 22 (measures the emotional state accompanying mental imagery, and the items are numbered (5, 11, 23, 17)) You measure The mental perception of image control, and the items with numbers (6, 12, 24, 18) measure the internal mental perception. (Osama Kamel, 2000, p. 322)

Debug key for testing:

Scores on this scale are estimated according to the following:

First: Collect the scores obtained in statement No. (1) in the four situations to represent visual perception.

Second: Collect the scores obtained in statement No. (2) in the four situations to represent the auditory perception.

Third: Sum the scores obtained in statement No. (3) in the four situations to represent the kinetic sensation.

Fourth: Sum the scores obtained in statement No. (4) in the four situations to represent the accompanying emotional state.

Fifth: Sum the scores obtained in statement No. (5) in the four situations to represent the ability to control mental imagery.

Level rating:

The level of mental perception in each dimension is estimated separately according to the following:

Table no(01): The key to estimating the level of mental perception.

1	excellent	18-20
2	good	15-18
3	middle	12-14
4	weak	8-11
5	Very weak	4-7

Source: Prepared by the researchers.

2.9 Reliability and validity of the mental perception scale:

Scale stability:

Reliability is defined as consistency in results, and a test is considered stable if we obtain the same results from it when re-applied to the same individuals and under the same conditions. (Marwan, page 67)

Table No. (02):Represent Stability coefficient alpha Cronbach's Mental Visualization Scale

The scale	the sample	Number of phrases	FactoralphaCronbach
Mental visualization	08	24	0.735

Source: Prepared by the researchers.

It is clear from Table No.03): which represents a stability coefficientalphaCronbach stated that the general reliability coefficient for the mental perception scale was high, reaching (0.735) for the scale's total 24 items using Cronbach's alpha, which indicates that the scale has a high degree of reliability. Therefore, it can be relied upon in the field application of the study according to the Nunley scale, which relied on 0.70 as the minimum reliability.

Validity of the scale:

The validity of a test or measure means the extent to which it measures the aptitude or characteristic it was designed to measure, that is, it is an estimate to know whether the test measures what we want to measure it with..

Table no(01): Correlation coefficients between the score of each axis and the total score of the mental perception scale

Interviewer	Indicative value	Correlation coefficient	The sample
Visual perception	0.016	0.807	08
Auditory visualization	0.001	0.929	
Sensorimotor perception	0.000	0.990	
Visualize the accompanying	0.021	0.786	
Controlling mental perception	0.000	0.935	
Internal visual mental perception	0.006	0.863	

Source: Prepared by the researchers

The effect of a mental training program on the mental perception process among national elite chess players

Abderrahmane Djaroub, Ahmed Hezloun

From the results of Table No. (04): which represents the correlation coefficients between the score of each axis and the total score of the mental perception scale. We find that all Pearson correlation coefficients are between axes Scale and total score. The scale is statistically significant at a significance level of 0.05, where the lower limit of the correlation coefficients was (0.786) and the upper limit was (0.990). Accordingly, it can be said that the mental perception scale is internally consistent because its axes have a statistically significant relationship with the total score of the scale. The scale is valid and can be relied upon in the field application of study procedures.

2.9 Program description:

The training program included Christian Target 23 Training unit, educational training units, and educational units. At a rate of 03 units per week, over a period of 08 weeks. The researchers relied on 3 basic axes in mental training: relaxation, mental visualization-Relax (mental perception) Calmels.Fournier.1999)

The training program consists of:

- Relaxation training: It consists of two main axes and the number of training units is (08).
- Mental imagery training: It consists of (09) axes and (09) training units.
- Relaxation training–Mental visualization: It consists of one axis and the number of training units is (03).

The program was put into its final form in codified ways after reviewing several references, scientific sources, and previous Arab and foreign studies that dealt with mental training.

Program Goals:

The proposed mental training programs have different objectives, depending on the specific needs and objectives of the studied sample undergoing training. Some common goals of suggested mental training programs include:

improve the performance: Mental training can help players improve their performance in various competitions. By learning to manage their thoughts, emotions, and behaviors more effectively, individuals can improve their performance and achieve their goals.

Develop flexibility: Mental training can help individuals develop greater resilience and coping skills, enabling them to recover from setbacks and overcome challenges more effectively. This can be especially useful in stressful situations or high-pressure competitions.

The effect of a mental training program on the mental perception process among national elite chess players

Abderrahmane Djaroub, Ahmed Hezloun

Improve focus: Mental training can help individuals develop their focus during competition, allowing them to stay more present and focused on winning. This can improve performance and reduce distractions.

Reduce stress and anxiety: Mental training can teach players stress and anxiety management techniques, such as relaxation exercises, breathing techniques, and visualization. It reduces the negative impact of stress on their physical and mental health.

Building confidence and self-esteem: Mental training can help players develop greater confidence and self-esteem by teaching them to recognize and challenge negative self-talk and limiting beliefs. This can lead to improved performance, relationships, and overall well-being.

Promote teamwork and communication: Brain training can help individuals develop better teamwork and communication skills, and improve collaboration and productivity in group settings.

2.10 Statistical methods used:

Descriptive statistics:

- SMA.
- standard deviation S .

Inferential statistics:

- Testing the differences between means in the case of two correlated samples T -test.
- Degree of freedom DF .
- Significance level α .
- Moral significance sig .

note: Processed Statistics Through a program SPSS 22.

3. Presentation, analysis and discussion of the study results:

3.1 Presentation, analysis and discussion of the study

hypothesis:

- **Hypothesis text:** There are statistically significant differences between the pre-measurement and the post-measurement of the mental imagery process among national elite chess players.

the purpose: Knowing the effect of a mental training program on the mental perception process among national elite chess players.

Table No. (04): Explains the results of the differences between the pre- and post-measurements of the mental perception process of the national elite in the game of chess.

	SMA $\bar{X}$	SD	Df	value T	α	Sig	Statistical
Pre-measurement	67.444	2.853	11	12.93 6	0.0 5	0.00 0	Statistically significant
Dimensional measurement	81.222	3.557					

Source: Prepared by the researchers

Analysis of the results of the first hypothesis:

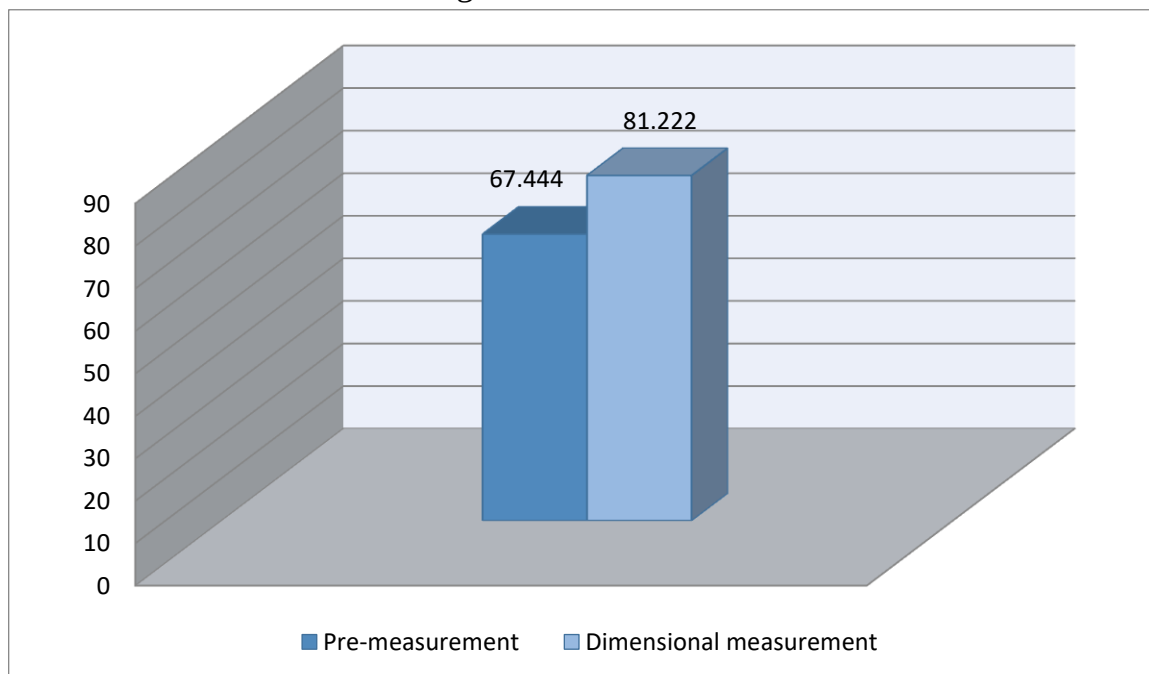
From Table No. (04) We note that the arithmetic mean value of the pre-measurement of the mental imagery process among the national elite chess players is (67.444), and the standard deviation value is (2.853). While the arithmetic mean of the post-measurement of the mental perception dimension was (81.222), with a standard deviation of (3.557). We also note that the value of T is (12.936) at a degree of freedom (11) and significance level (0.05). The value of the moral significance was sig (0.000), and by comparing the moral significance with the level of significance, we find that the sig is less than the moral significance. So the measure is statistically significant.

Therefore, it can be said that there are statistically significant differences between the pre-measurement and the post-measurement practical Visualization Mental In favor of dimensional measurement.

The effect of a mental training program on the mental perception process among national elite chess players

Abderrahmane Djaroub, Ahmed Hezloun

Figure No. (01): Shows the differences between the means of the pre- and post-measurements of the mental perception process of the national elite for the game of chess.



Source: Prepared by the researchers

Table No. (05) represents the percentage of effect of the mental training program on the mental visualization process.

r	df	t	Sig
0.96	17	12.936	0.000

Source: Prepared by the researchers

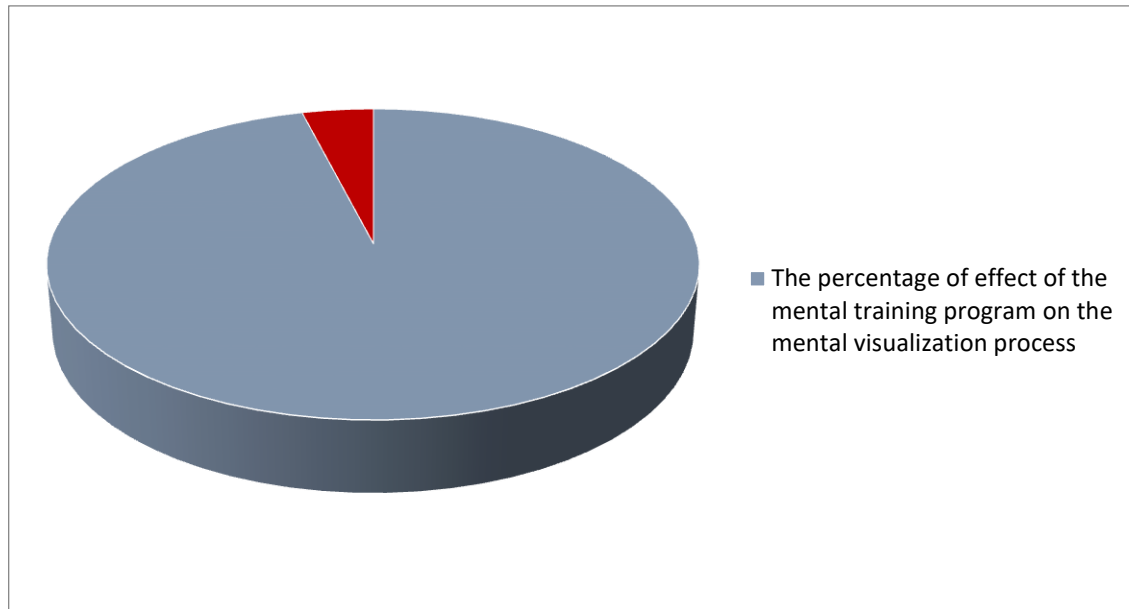
Through Table No. (05) reach:

$r=0.96$ at $\text{sig}=0.000$, $t=12.93$, from which we conclude that the mental training program had a 96% impact on the mental visualization process, which is a high percentage.

The effect of a mental training program on the mental perception process among national elite chess players

Abderrahmane Djaroub, Ahmed Hezloun

Figure number (02) represents the percentage of effect of the mental training program on the mental visualization process.



Source: Prepared by the researchers

3.2 Discussing the results of Hypothesis of the study:

Based on the text of the hypothesis: There are statistically significant differences between the pre-measurement and the post-measurement of the mental perception process among the national elite chess players.

From the statistical treatment and from Table No. (04) And Graphical figure number (01) It was found that there were statistically significant differences between the pre-measurement and the post-measurement of the mental visualization process in favor of the post-measurement attributed to the mental training program, and from Table No. (05) and Chart No. (02) We find The percentage of impact of the training program on the mental visualization process reached 96% very high That is, the proposed mental training program had a positive impact on the mental perception process of the national elite chess players.

This is due to the researchers's focus on the mental training program, which contains exercises for mental visualization, relaxation, and concentration of attention. We find that the training program helps the player clarify his goals and control the desired results during competition, by creating a detailed mental image. They can consolidate and increase motivation and Focusing when making important decisions that are consistent with those goals. It also helps in visualizing successful decision-making scenarios. When the player is able to use the mental visualization process, it allows him to better evaluate the potential benefits and risks associated with each option. This is because the neurotransmitters that transmit the nervous message while making any movement are the same ones that transmit the nervous message while imagining a situation in which the player makes a correct decision, and thus he works to program himself to make positive decisions, and this is what led to the development of the level of mental perception among the national elite players. For chess.

The current study is supported by most studies that used mental training programs as an independent variable, all of which had positive effects on the process of mental visualization. Among these studies are the study of Raqiq Saed, the study of Bin Ruqayyah Abed, and the study Nabil Afroghan. We find that all these studies have concluded that there is a positive effect of mental training on mental skills and physical skills by improving and developing all the skills studied.

From the above mentioned, it can be said that Study hypothesis It was achieved and the impact was positive among the national elite chess players.

4. Conclusion:

In conclusion, the collective evidence from various studies on mental training consistently supports its effectiveness in enhancing performance and well-being. The positive results observed across various interventions, such as individual mental skills training programs, psychological skills training, and mental toughness courses, underscore the versatility and applicability of mental training across diverse contexts. The effectiveness of mental preparation has been highlighted, especially through techniques such as Neuro-Linguistic Programming (NLP).NLP), focusing on the positive impact on the development of athletes. Moreover, decreased anxiety and enhanced self-confidence among young swimmers after mental training also confirm its positive effects on mental health. Overall, mental training is emerging as a valuable tool not only for improving performance but also for enhancing mental resilience and overall positive mental health.

5. List of sources and references:

- Osama Kamel Rateb, preparation Psychology for young people, Dar Al-Fikr Al-Arabi, 2005, Cairo, Egypt.
- Mustafa Hussein Bahi Samir Abdel Qader Gad, The Psychology of Sports Excellence, Damascus Publishing and Distribution House, 1999, Cairo, Egypt..
- Muhammad Al-Arabi Shimon Magda Mohamed Ismail, The Player and Mental Training, Al-Kitab Publishing Center, 2007, Egypt.
- Ali Hussein Hashim Al-Zamili, Psychological Preparation in Training and Competition, Dar Al-Diyaa Printing, 2020, Iraq, 24, first edition.
- Emirates Chess Federation, Chess, Emirates Publishing and Advertising, 2000, UAE, 02, first edition.
- Haider Abdul Razzaq Kadhim Al-Abadi, Basics of Writing Scientific Research in Physical Education and Sports, Al-Ghadeer Printing and Publishing Company Limited, 2015, Iraq, first edition.
- Marwan Abdel Majeed Ibrahim, Foundations of Scientific Research for Preparing University Theses, Al-Warraaq Publishing and Distribution Establishment, 2000, Amman, Jordan, first edition.
- Budawood Abdel Yameen Atallah Ahmed, Guide to Scientific Research for Physical Education and Sports Students, Office of University Publications, 2009, Algeria.
- Wajih Mahjoub, The Principles of Scientific Research and Its Methods, Dar Al-Mahraj for Publishing and Distribution, 2005, Amman, Jordan, second edition.
- Osama Kamel Rateb, psychological skills training, applications in the sports field, 1st edition, Cairo, Dar Al-Fikr Al-Arabi, 2000.
- Logan Donovan, Chess the complete guide to chess. master chess .tactics. chess openings and chess strategies, Iamcoach press, 2015, United States of America, 55, 4th edition

Scientific articles:

- Bin Ruqaya Abed, 2015, Volume 04, Issue 02, Scientific Article, Journal Science and practices of physical, sporting and artistic activities, The effect of a proposed mental training program on developing some mental skills and improving the skill of forward shooting in basketball.
- My Arab sender, Brahimi Kaddour, 2022, Volume 14, Issue 01, Scientific Article, Challenge Magazine, A The effect of mental training on developing neuromuscular coordination and the nature of its relationship to developing the skill of crushing the ball for young volleyball players..

The effect of a mental training program on the mental perception process among national elite chess players

Abderrahmane Djaroub, Ahmed Hezloun

-
- Muhammad Qaqzouz, Al-Eid bin Smisha, Muhammad Madani, 2016, Volume 01, Issue 01, Scientific Article, Excellence Magazine in Science and Technology of Physical Activities and Sports, The effect of mental training on developing some mental skills and learning some basic skills in volleyball.
 - Afroghan Nabil, 2014, Volume 06, Issue 01, Scientific Article, Academy for Social and Human Studies, Visualization and mental training: techniques and how to apply them in the sports field.
 - Reguig Saad, 2016, Volume 03, Issue 01, scientific article, Al Manzumah Sports Magazine, The effect of mental training on the performance of the standing shooting skill in basketball.
 - Orabi Sheikh, Bin Al-Din Kamal, Khaloul Ghanaian, 2021, Volume 13, Issue 02, Scientific Article, Challenge Magazine, For mental training and its reflection on physical load levels from the point of view of football players.
 - Logan Donovan, Chess the complete guide to chess. master chess .tactics. chess openings and chess strategies, Iamcoach press, 2015, United States of America, 55, 4th edition