

Predicting some thinking strategies in terms of mental skills of some national team players

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Abstract :-

The aim of the study was to find out the percentages of the contribution of mental skills in the thinking strategies of the national team players, in order to try to reach the player to the required level of mental preparation .He wanted to develop a predictive equation to calculate the degree of some thinking strategies through the mental skills of the national team players .The researcher chose (60) players of national teams ; (45) players were chosen as a basic study, and (15) players were selected as a sample for the exploratory study. Method: the researcher used descriptive approach, due to its relevance to the nature of this research. Results: mental skills are considered important in predicting the level of thinking strategies.

Keywords: thinking strategies, mental skills, national team players.

Introduction:-

The sports field is one of the fields that has been developed greatly in various disciplines. This was through extensive studies and research that contributed greatly to the development and supply of this field with many important information and provided coaches with a solid base for work and creativity and the progress of the training process at a scientific and codified pace to reach the best sports levels.

Fouad Abo Hatab and Amal Sadiq” (2010): indicates that the future was not clearly defined in the scientific method of research except with the emergence of the concept of regression in modern statistics, and it developed from the correlation coefficient method that aims to describe the relationships between variables within (The empirical approach) which deals with the current situation, and then soon scientists

discovered the huge possibilities that this important statistical method includes, including estimating the value of an unknown variable from the known value of another variable as long as there is a calculated relationship between them for the correlation coefficient, and this is the essence of statistical prediction and the used statistical method is called In this case, the method of regression analysis, which may be simple or multiple. **(12: 68)**

Abo Hashem (2005) said that the regression analysis method clarifies the relationship between the variables in the form of a function relationship expressed in the form of an equation and deduces from estimating its coefficients the importance of the relationship, its strength and direction, and that it is of great importance in planning and making sound decisions in research .**(1: 49)**

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Mohammad Al-Arabi and Magda Ismail (2001) point to the importance of developing integration between the mind and the body, to discover true abilities, through mental preparation programs and the use of thinking strategies, as well as the development of various mental skills, which must go hand in hand with physical preparation programs - skills - Tactical, as this gives a sense of safety and results in reducing the fear of failure and avoiding some obstacles in performance such as frustration with the instability of performance and distraction as a result of errors and poor level. (36:427)

Mohammad Al-Arabi (2000) considers that thinking strategies include all kinds of behavior and ideas since the beginning of the competition and when the player is under the complete control of the competitors, as well as all the recovery and calming procedures that must be followed after the competition. The content of the strategy is determined according to the type of activity practiced as well as the characteristics of the player.

There are many thinking strategies used in the sports field between thinking about the skill duty, positive self-talk, fragmentation of performance, mood words, and others.

It is obvious that learning and theoretical performance focus entirely on the mind, while kinetic performance requires multiple abilities, including mental abilities, the basis on which learning is based. (3:8)

Mohammad Al-Arabi and Magda Ismail (2001) refer to the multiplicity of mental skills to include

relaxation skills, visualization, focus attention, psychological energy control, cognitive reconfiguration, isolating negative thoughts, self-reconfiguration and other mental skills. There is an interrelationship between these skills, each other, as the development of one of them helps in developing the other mental skills. (36:94)

Relaxation training has a great importance in all mental training programs and thinking strategies, and these programs include a special program to develop the ability to relax muscular and mental, As the success and development of these programs depends on mastery of this skill, and many studies have indicated the positive role of relaxation training in developing performance and achieve the best results.

Osama Ratib (1995) indicates that mental visualization is a major factor in developing kinetic skills and improving performance. It is a mental means through which perceptions of previous experiences or new perceptions that have not occurred before can be formed for the purpose of mental preparation for performance. This type of mental perception is called (mental map). (5: 117)

Naglaa Fathi (2002) indicates that focusing attention is one of the important mental skills, as it represents one of the basic skills for good performance. It is an important element of the success of the education, training or competition process in its various forms. (50: 27)

Mohammad Al-Arabi (2002), quote from **Nideffer (1996)** indicates

that concentration of attention is used to integrate mental and physical functions. Therefore, accurate testing of the player's attention and understanding the relationship between attention and increased watchfulness performance can lead to better prediction and control of behavior. (35: 131)

Second, the research problem:

Through the researcher's observation that some of the thinking strategies (thinking about the skill homework, positive self-talk) include the content of the practiced and appropriate mental activity that develops mental skills and the ability to address problems before and during and includes all types of behavior and ideas since the beginning of the competition. The content of the strategy is determined according to the type of activity practiced as well as the characteristics of the player.

Hence, the researcher saw that there is an urgent need to know the percentages of the contribution of mental skills in the thinking strategies of the national team players, in order to try to reach the player to the required level of mental preparation.

Third, the research objective:

1- Develop a predictive equation to calculate the degree of some thinking strategies through the mental skills of the national team players.

Fourth: Research hypotheses:

The researcher formulated his hypothesis in the form of questions:

1. Is it possible to predict the level of prediction of some thinking strategies

in terms of mental skills of some players of the national teams under consideration?

Fifth: Search terms: -

1- **Predictive studies:** they depend in essence on a statistical method; Where the value of an unknown variable is estimated from the known value of another variable, as long as there is a calculated correlation coefficient between them. This is the essence of statistical prediction, and the statistical method used in this case is called the regression analysis method, which may be simple or multiple (12: 66).

Search procedures

First: Research Methodology:

The researcher used the descriptive approach, following the survey method, due to its relevance to the nature of this research.

Second: Research community and sample:

Description of the research population and sample:

The research community represents all the national team players under (17) years old who are registered for the 2019/2020 sports season, amounting to (120) players. The sample of the research was chosen by the intentional method, and they were (60); (45) players were chosen as a sample for the application of the basic study, and (15) players were selected as a sample for the exploratory study and the table (1) shows the size and distribution of the research sample according to clubs and youth centers.

Table (1)
Size and distribution of the research sample according to their clubs n = 60

| N | Club name | Number of players | | Sample total |
|--------------|-----------|-------------------|-------------------|--------------|
| | | basic study | exploratory study | |
| 1 | boxing | 12 | 6 | 18 |
| 2 | Karate | 11 | 2 | 13 |
| 3 | Athletics | 12 | 1 | 13 |
| 4 | handball | 10 | 6 | 16 |
| Sample total | | 45 | 15 | 60 |
| percentage | | 75% | 25% | 100% |

Table (1) shows a description of the total research sample according to their clubs and affiliated regions, where the number of juniors for the basic study was (45) players with a percentage of (75%) in relation to the number of the total research sample, which numbered (60), while the number of juniors for the exploratory study was (15) players with a percentage of (25%) in relation to the number of the total research sample.

Conditions for selecting a research sample:

The **researcher** selected the research sample according to the following conditions:

1. The sample members are registered as national team players.
2. The ages of the players range between (15: 17) years
3. The approximation of the research sample in age and training age.
4. The training age should not be less than (7) years, and they have been approved to participate in the study.

B- Homogeneity of the research sample:

The researcher found homogeneity for the members of the total research sample, which numbered (60) players in the variables of growth and training age, as shown in Table (2) of the sample.

Table (2)
Homogeneity of growth variables n=60

| variables | Mean | Median | Standard deviation | Skewness |
|--------------|--------|--------|--------------------|----------|
| Age | 15.48 | 16.00 | 0.71 | - 0.68 |
| Length | 169.33 | 167.00 | 4.35 | 1.61 |
| weight | 58.41 | 58.00 | 2.39 | 0.51 |
| training age | 8.32 | 8.00 | 0.82 | 1.17 |

It is clear from the table that the homogeneity of the sample members was limited to (± 3), which indicates the moderation of the sample distribution.

Third: Tools and means of data collection:

Document analysis: The national team records are under study in order to verify some data about the players, especially the training age.

Data registration forms: a form for recording players' measurements in the variables (growth - thinking strategies - mental skills). Attachment (1)

Analysis of references and previous studies in the field of psychology

(content analysis) in order to determine thinking strategies - mental skills.

Expert opinion survey forms (questionnaire) in order to determine mental skills .

It is used in thinking strategies for matches in the age group under study and was presented to (7) experts in the field of sport psychology, Attachment (2) .

Table (3)

| Expert opinions on the most important mental skills n=10 | | | |
|--|---|---------------|------------|
| N | mental skills | Repeat assent | percentage |
| 1 | Relaxation Ability Scale | 9 | 90% |
| 2 | Muscle stress levels card | 9 | 90% |
| 3 | Mental perception scale in the sports field | 9 | 90% |
| 4 | network test for focus | 9 | 90% |

It is clear from Table (3) that the percentage of experts' opinions to determine the most important mental skills ranged (90%), and the researcher agreed with (80%) or more of the experts' opinions, and the mental skills extracted are: the Relaxation Ability Scale

- the muscle stress levels card - the scale Mental visualization in the sports field - network test for concentration of attention).

Thinking Strategies: Prepared by **Muhammad Al-Arabi Shamoun, Magda Ismail (2001)**. It was presented to the experts, attachment (2), and obtained a percentage of (85%) from the repeated approval of the test.

Fourth: The survey:

The exploratory study was conducted from 1/11/2018 to 8/11/2018 on the

exploratory research sample of (15) players, and the aim of this study was:

1. Checking the validity of (tools, devices, data registration forms) used in the research.
2. Reviewing the procedures, conditions and instructions of the tests used in the research
3. Ensuring the availability of scientific transactions (honesty, stability, objectivity) for the tests used in the research.

C- Calculating the scientific coefficients of the tests of thinking strategies - the mental skills in the study:

1- Validity of the tests

2- A scale of the ability to relax:

This scale was originally developed by "Frank Vital under the title "Your Ability to Relax" and consists of (15) statements that allow the individual to

express his ability to relax muscular and volitional by means of verbal responses to the statements of the scale. This test was prepared in its Arabic form, **Muhammad Allawi and Ahmed Al-Seyoufi (1981)**.

First, the honesty coefficient:

The researcher presented the scale to (10) arbitrators, attached (9), in application of logical honesty. The arbitrators expressed their opinions regarding the extent of logicity and conformity of the scale statements with

what was set to be measured, and the agreement of the arbitrators was (100%), which indicates the availability of logical honesty.

Second, the stability coefficient:

The researcher found the stability of the tests by using "Test-Retest" method with an interval of one week between the first application and the second one on a sample of (5) students that were randomly selected from the research community and outside the original research sample.

Table (4)
Correlation coefficient between the first application and the second application in the scale of the ability to relax n=5

| Variables | First application | | Second application | | T | Correlation coefficient |
|----------------------|-------------------|------|--------------------|------|------|-------------------------|
| | x | y | x̄ | ȳ | | |
| The ability to relax | 40.80 | 2.49 | 40.80 | 1.83 | 1.00 | 0.910 |

The tabular value of "t" at the level (0.05) = 0.811

Table (4) shows that the values of the correlation coefficient between the first and second application of the dimensions of the scale have given a high value, which gives a high degree of reflection on the stability of the tests under discussion.

3- Muscle tension levels card:

This card was developed by "**Nideffer**" (1985) to assist the player to identify the levels of muscle tension in the different muscle groups as a mean to identify the optimal level of excitability to achieve the best results. Three muscle groups were chosen. The first muscle group includes the muscles (face - neck - jaw).

The second group is on the muscles (shoulders - chest - arms) and the third group is on the muscles (thigh - leg) and the card consists of a graduated

scale of ten scales divided into three dimensions, (1,2) complete relaxation (3,4,5,6,7,8).

Medium tension, (9,10) high tension The player is asked to record the degree of tension in the specific muscle groups and what he feels in those moments.

This card was prepared in its Arabic form, Muhammad Al-Arabi Shamoun, Magda Ismail (1996) attachment (3) and a fourth dimension was added, which is the muscles (abdomen and back) so that the card includes all the muscles working during kinetic performance, and the package also became in its image as follows:

- The first group: the face, neck and jaw.

- The second group, the shoulders, chest and arms.
- The third group: abdomen and back.
- Fourth group: thigh , leg and insteps.

First, the honesty coefficient:

The validity of the stress levels card in the current study was found by finding the validity associated with the test by

applying the muscle tension levels card with the ability to relax scale prepared by **Muhammad Hassan Allawi and Ahmed Al-Seyoufi** on a random sample of the research community and outside the main research sample consisting of (5) students. Table (5) illustrates this.

Table (5)

Correlation coefficient between the first and second application of the muscle tension levels card n=5

| Variables | first application | | Second application | | T | Correlation coefficient |
|----------------|-------------------|-------|--------------------|-----------|------|-------------------------|
| | x | y | \bar{x} | \bar{y} | | |
| muscle tension | 54.8 | 18.83 | 48.0 | 15.3 | 0.63 | 0.99 |

The tabular value of "t" at the level (0.05) = 0.811

Table (5) shows that the values of the correlation coefficient between the first and second application of the dimensions of the scale have given a high value, which ensures the stability of the tests under discussion.

Second, the stability coefficient:

The researcher found the stability of the tests through "Test-Retest" method with an interval of one week between the first and second application, on a sample of (5) students that were randomly selected from the research community and outside the original research sample .

Table (6)

Correlation coefficient between the muscle tension levels card and the ability to relax scale n=5

| muscle tension level | | ability to relax scale | | Correlation coefficient |
|----------------------|-------|------------------------|------|-------------------------|
| x | y | x | Y | |
| 54.8 | 18.83 | 40.80 | 2.49 | -0.873 |

The tabular value of "t" at a significant level of 0.05 = 0.811

It is clear from the previous table No. (6) that the value of the correlation coefficients between the stress levels card and the relaxation ability scale is a negative correlation, which indicates the validity of the card.

4- Mental perception scale in the sports field:

This scale was originally developed by **Marttons (1982 AD)**

with the aim of identifying the degree to which the senses can be used during mental visualization. This scale consists of four dimensions: (visual perception, auditory perception, kinesthetic perception, emotional perception). **Vealy and Waltr (1993)** added two dimensions to this scale, namely control of **perception and internal perception**.

This scale includes four sports situations, which are:

- Individual practice.
- Performance in competition.
- watching the colleague.
- Practice with others.

The Arabic version of this scale was prepared by **Muhammad Al-Arabi Shamoun, Magda Ismail (1996)**.

First: the honesty coefficient:

The validity of the mental perception scale was found by the internal consistency validity, by calculating:

Correlation coefficients between the degree of each sports situation and the total sum of the scale, using a random sample from the research community and outside the research sample, consisting of (5) students.

The following table illustrates this:

Table (7)

Correlation coefficients between the score of each sports situation and the total sum of the mental perception scale n=5

| Situation | (T) value |
|----------------------------|-----------|
| individual practice | 0.826 |
| Practicing with others | 0.897 |
| Watching colleague | 0.834 |
| performance in competition | 0.842 |

The tabular value of "t" at a significant level of $0.05 = 0.811$

It is clear from Table (7) that the correlation values ranged between (0.826), (0.897), and this value is statistically significant.

Second, the stability coefficient

The researcher found the stability of the tests by using "Test-Retest" method with an interval of one week between the first and second application on a randomly selected sample from the research community.

Table (8)

Correlation coefficient between the first and second application in the mental perception scale in the sports field n=5

| Variables | First application | | second application | | T | Correlation coefficient |
|---|-------------------|------|--------------------|------|------|-------------------------|
| | x | y | x̄ | ȳ | | |
| Visualize (individual practice) | 20.80 | 2.77 | 21.40 | 1.14 | 0.45 | 0.930 |
| visualize (practice with others) | 19.40 | 3.05 | 22.60 | 2.30 | 1.87 | 0.97 |
| Visualize (watching colleague) | 18.80 | 3.63 | 23.0 | 3.08 | 1.97 | 0.95 |
| perception (performance in competition) | 20.60 | 4.62 | 24.0 | 3.32 | 1.34 | 0.85 |

The tabular value of "t" at the level $(0.05) = 0.811$

Table (8) shows that the values of the correlation coefficient between the first and second application of the dimensions of the scale have given a

high value, which ensures the stability of the tests under discussion.

5- The network test to focus attention:

This test was developed by **Darthy Hartis (1987)** to measure concentration of attention and prepared in its Arabic form, **Muhammad al-Arabi Shamoun (1996)**. This test consists of a set of numbers from zero to ninety-nine inside boxes. It is presented to the student for a period of one minute, and he is asked to follow these numbers in the order from the number assigned to it, by placing a check mark on these numbers, and the number of squares reached at the end of the minute is calculated. Keeping in mind that the number consists of two numbers, and this test is distinguished by the fact that it can be presented several times due to the difference in the beginning each time.

First, the validity coefficient:

The researcher presented the scale to ten arbitrators, attached (9), in application of logical honesty. The arbitrators expressed their opinions regarding the extent of logicity and conformity of the scale statements with what was set to be measured, and the agreement of the arbitrators was (100%), which indicates the availability of logical honesty.

Second: Stability coefficient:

The researcher found the stability of the tests by using "Test-Retest" method with an interval of one week between the first application and the second application on a sample of (5) students that were randomly selected from the research community and outside the original research sample, taking into account the availability of the same conditions in applied.

Table (9)

Correlation coefficient between the first and second application in the network test for concentration of attention n=5

| Variables | First application | | second application | | T | correlation coefficient |
|-----------|-------------------|------|--------------------|------|------|-------------------------|
| | X | y | x̄ | ȳ | | |
| Attention | 12.80 | 4.32 | 12.80 | 2.77 | 0.00 | 0.856 |

Table "t" value at the level (0.05) = 0.811

Table (9) shows that the values of the correlation coefficient between the first and second application of the dimensions of the scale have given a high value, which ensures the stability of the tests under discussion.

6- Thinking Strategies Test:

This test was prepared by **Muhammad al-Arabi Shamoun and Magda Ismail (2001)** Attachment (6) to identifying the extent to which the player in different sports situations, whether in training or competition,

used thinking strategies and mental skills to reach the best results. This test consists of (40) phrases that include five dimensions: (Thinking about the skill duty - self-talk - agitation - emotional control - setting up goals).

First, honesty coefficient:

The researcher calculated honesty by finding the correlation coefficients between the degree of each dimension (strategy) and the total sum of the test, as well as the correlation coefficients between the score of each phrase and

the total sum of each dimension, on a sample of (5) students from the research community and outside the

basic research sample, and the following table illustrates this:

Table (10)
Internal consistency of the dimensions of the thinking Strategies scale with the overall score of the scale n=5

| N | Dimension | Correlation with the scale |
|---|--------------------------------|----------------------------|
| 1 | Thinking of a skill assignment | 0.863 |
| 2 | positive self-talk | 0.917 |
| 3 | Arousal | 0.821 |
| 4 | emotional control | 0.843 |
| 5 | Setting up goals | 0.835 |

The tabular value of "t" at a significant level of 0.05 = 0.811

It is clear from Table (10) that the value of the internal consistency between the dimensions of the thinking strategies test and the total score of the test ranged between (0.821) for the arousal dimension and (0.917) for the positive self-talk dimension, which are high correlation coefficients, which indicates the availability of a high degree of internal consistency of the test and its dimensions .

Second: Stability coefficient:

The researcher found the stability of the tests by using "Test-Retest" method with an interval of one week between the first application and the second application on a sample of (5) students that were randomly selected from the research community and outside the original research sample .

Table (11)
Correlation coefficient between the first application and the second application to test thinking strategies n=5

| Variables | First application | | second application | | T | Correlation coefficient |
|------------|-------------------|-------|--------------------|------|------|-------------------------|
| | x | y | x̄ | ȳ | | |
| Strategies | 118.0 | 12.06 | 125.80 | 9.83 | 1.12 | 0.91 |

Table "t" value at the level (0.05) = 0.811

Table (11) shows that the values of the correlation coefficient between the first and second application of the dimensions of the scale have given a high value, which ensures the stability of the test under discussion .

Fifth: Homogeneity of the (basic) research sample:

The homogeneity of the research sample was conducted in some variables that may affect this study, which are (thinking strategies in the sport of psychology - mental skills), and table (5) shows the homogeneity of the (basic) research sample.

Table (12)
The mean, median, standard deviation and skew coefficient For the (basic)
research sample n = 45

| N | Variables | measruing unit | Mean | median | standard deviation | skewness |
|---|----------------------------|----------------|--------|--------|--------------------|----------|
| 1 | Thinking Strategies | degree | 135.87 | 137.00 | 0.79 | 0.18 |
| 2 | Stress | degree | 36.47 | 39.00 | 3.36 | 2.31 |
| 3 | individual practice | degree | 48.80 | 45.00 | 3.94 | 1.98 |
| 4 | Practicing with others | degree | 23.60 | 24.00 | 3.58 | 2.19 |
| 5 | Watching colleague | degree | 23.20 | 24.00 | 2.58 | 2.52 |
| 6 | performance in competition | degree | 22.80 | 22.00 | 2.36 | 2.62 |
| 7 | Attention | degree | 23.73 | 23.00 | 2.31 | 2.54 |
| 8 | The ability to relax | degree | 13.40 | 13.00 | 3.54 | -2.04 |

The results of Table (12) indicate the homogeneity of the sample members in (thinking strategies - mental skills), where the skew coefficient ranged between the skew coefficient (+3), which indicates the homogeneity of the research sample.

Seventh: The basic study:

The researcher, after making sure of the availability of the scientific coefficients (honesty, stability) for the candidate tests under study under (17) years, applied them to the basic study sample of (45) players from 10/11/2018 to 20/11/2018, and after that the data is processed statistically.

Eighth: Statistical treatments:

In light of the research objectives and questions, the researcher used the following statistical treatments:

- Mean.
- Standard deviation.
- Percentage.

- Pearson's simple correlation coefficient.

- Median.

- Simple Linear Regression.

- The skew coefficient and the researcher has satisfied the level of significance (0.05).

Presentation and discussion of results

Presentation and discussion of the results of the first hypothesis, which Is It Possible to Predict 1. Is it possible to predict the level of prediction of some thinking strategies in terms of the mental skills of some of the national team players under study?). Depending on the objectives and question of the research, the researcher presented the results and discussed them with the data obtained as follows:

First: characterization of the data of the thinking strategies and mental skills under study

Table (13)
Description of thinking strategies and mental skills n = 45

| Variables | | Mean | median | standard deviation | skewness |
|----------------------|----------------------------|--------|--------|--------------------|----------|
| Relaxation | The ability to relax | 36.47 | 39.00 | 6.32 | 1.20 |
| muscle tension | Stress | 48.80 | 45.00 | 15.47 | 0.75 |
| mental visualization | individual practice | 23.60 | 24.00 | 2.23 | 0.55 |
| | Practicing with others | 23.20 | 24.00 | 4.46 | 0.18 |
| | Watching colleague | 22.80 | 22.00 | 2.00 | 1.03 |
| | performance in competition | 23.73 | 23.00 | 2.25 | 0.97 |
| focus attention | Attention | 13.40 | 13.00 | 2.44 | 0.96 |
| Thinking Strategies | Thinking Strategies | 135.87 | 137.00 | 13.13 | 0.26 |

It is clear from Table (13) that the skew values ranged between (0.26) for the variable of thinking strategies and mental skills, and that all the skew values are limited to (+3, -3), which indicates that the members of the group

have a high level of homogeneity, which indicates that The average distribution of the sample.

Second: The correlation matrix for the variables of thinking strategies and mental skills under study:

Table (14)

Correlation matrix table n = 45

The tabular value of "t" at the level of significance (0.05) = (0.355)

| N | thinking strategies | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---------------------|-------|--------|--------|--------|--------|--------|---|
| | thinking strategies | | | | | | | |
| | 1 | 0.659 | | | | | | |
| | 2 | 0.628 | 0.126 | | | | | |
| | 3 | 0.628 | 0.066 | -0.064 | | | | |
| | 4 | 0.026 | 0.083 | 0.164 | 0.095 | | | |
| | 5 | 0.722 | -0.159 | 0.284 | -0.014 | 0.549 | | |
| | 6 | 0.096 | 0.37 | -0.13 | 0.094 | -0.278 | -0.321 | |

It is clear from Table (14) regarding the correlation matrix for the variables of thinking strategies and mental skills under consideration that there is a significant correlation at the level of significance (0.05), where the value of

the correlation coefficient ranged for the relaxation ability test (0.659), the stress test (0.628) and the individual's practice test (0.722) and the peer viewing test (0.783) with the thinking strategies test and there is no

significant correlation at the level of significance (0.05) between the thinking strategies test and the rest of the mental skills, where the coefficient

of those abilities is less than (0.355).

Third: Predictive variables of thinking strategies:

Table (15)
Linear regression of mental skills on stepwise thinking strategies n=45

| N | Contributing variable name | Multiple correlation coefficient | square of the multiple correlation coefficient | square of the modified correlation coefficient | Standard error in estimate | Value of f | Value of t | The total contribution |
|---|----------------------------|----------------------------------|--|--|----------------------------|------------|------------|------------------------|
| 1 | The ability to relax | 0.722 | 0.521 | 0.504 | 0.55651 | 30.49 | 10.673 | 52.10% |
| 2 | Stress | 0.841 | 0.707 | 0.685 | 0.44352 | 32.544 | 7.457 | 70.70% |
| 3 | individual practice | 0.923 | 0.853 | 0.836 | 0.32046 | 50.13 | 10.911 | 85.30% |
| 4 | Practicing with others | 0.95 | 0.903 | 0.887 | 0.26578 | 57.858 | 7.277 | 90.30% |

The results of Table (15) indicate that there is a strong correlation between thinking strategies and mental skills. In the relaxation ability test, the multiple correlation coefficient was (0.722) with a contribution rate of (52.10%), the adjusted correlation coefficient was (0.504) and the equation was variance (30.49).) and the t-value of the equation (10.673), and the stress test reached the multiple correlation coefficient (0.841), with a contribution rate of (70.7%). The adjusted correlation coefficient was (0.685), the variance of the equation (32.544) and the t-value of the equation (7.457), and the individual practice test reached the multiple correlation coefficient (0.923)

with a contribution rate of (85.3%) and the adjusted correlation coefficient reached (0.836) and the variance of the equation (50.130) and the t-value of the equation (10.911). The practice test with others reached the multiple correlation coefficient (0.950) with a contribution rate of (90.3%), the adjusted correlation coefficient (0.887), the variance of the equation (57,858) and the t-value of the equation (7.277).

It is clear from the table that it is possible to rely on mental skills in statistically predicting thinking strategies

Fourth: Predicting thinking strategies in terms of mental skills :

Table (16)

The value of the constant magnitude and the regression coefficient of the tactical maps in the prediction equations n = 45

| Number of contributory variable | contributory variable | Fixed volume | regression coefficient | error percentage |
|---------------------------------|------------------------|--------------|------------------------|------------------|
| 1 | The ability to relax | 818 | 0.108 | 0.02 |
| 2 | The ability to relax | 3.539 | 0.088 | 0.475 |
| | Stress | | 0.054 | 0.016 |
| 3 | The ability to relax | 5.252 | 0.083 | 0.013 |
| | Stress | | 0.059 | 0.481 |
| | individual practice | | -0.033 | 0.012 |
| 4 | The ability to relax | 3.942 | 0.077 | 0.01 |
| | Stress | | 0.069 | 0.007 |
| | individual practice | | -0.03 | 0.542 |
| | Practicing with others | | 0.025 | 0.01 |

It is clear from Table (16) of the equation for the predictive regression they are:

1- The first contributory variable in the level of thinking strategies: $y = w + m x^1$
 $y = (4.818) + (0.108)$ ability to relax .

2- The second contributing variable in the level of thinking strategies : $y = w + m x^1 + m x^2$. $y = (3.539) + (0.088)$ ability to relax + (0.054) stress .

3- The third contributing variable in the level of thinking strategies: $y = w + m x^1 + m x^2 + m x^3$. $y = (5.252) + (0.083)$ ability to relax + (0.059) tension + (-0.033) individual practice test w .

4- The fourth contributory variable in the level of thinking strategies: $y = w + m x^1 + m x^2 + m x^3 + m x^4$. $y = (3.942) + (0.077)$ ability to relax + (0.069) tension + (-0.030) individual practice test w + (0.025) practice with others .

With this, the researcher has reached the equation of the predictive regression line for the standard sum of

the tactical maps in terms of the fixed amount of the fourth contributor, and the equation is:

$y = (3.942) + m x^1 + m x^2 + m x^3 + m x^4$
 $y = (3.942) + (0.077)$ practice with others + (0.069) individual practice w + (-0.030) relaxation ability test + (0.025) practice with others

The percentage of the total contribution of the mental skills under study reached (90.3%), where the rest of the percentage of contribution is due to other variables that the researcher could not identify. Therefore, mental skills are considered important in predicting the level of thinking strategies, and the researcher attributed this to the fact that mental skills represent different models of Skills merge with each other and overlap and represent mental skills (90.3%) from thinking strategies and when performing, we cannot separate each skill from the skills and consider that the separate skill is represented by one thinking strategy, and even if we do

this, the single skill represents more than one contributing ability. As for the thinking strategies, the player performs the skills in a consecutive and fast manner until the completion of the thinking strategies and gets all the points and throws his opponent to the ground.

Muhammad Al-Arabi (1996 AD), quoting from “**Mursanio**,” agrees that the strategies must be planned to include all the details of performance and try to put them under control and work on programming them mentally so that they can focus and reach optimal performance (32: 335).

It also agrees with what was indicated by **Mohamed El-Araby** that thinking strategies help a sense of safety and make the player feel reassured, which leads to no fear of failure and reduces the appearance of errors. Therefore, the player must have some strategies that work to maintain him in a state of good feeling and in proportion to the activity practiced (32: 443-444).

These results agree with the study of **Schomer (1996) (72) and Naglaa Fathi (2002) (51)** on the need to use thinking strategies because of their effective role in developing the level of skill performance.

Conclusions and Recommendations:

Conclusions:

1- The first contributory variable in the level of thinking strategies: $y = w + m x^1$
 $y = (4.818) + (0.108)$ ability to relax .

2- The second contributing variable in the level of thinking strategies : $y = w + m x^1 + m x^2$. $y = (3.539) + (0.088)$ ability to relax + (0.054) stress .

3- The third contributing variable in the level of thinking strategies: $y = w +$

$m x^1 + m x^2 + m x^3$. $y = (5.252) + (0.083)$ ability to relax + (0.059) tension + (-0.033) individual practice test w .

4- The fourth contributory variable in the level of thinking strategies: $y = w + m x^1 + m x^2 + m x^3 + m x^4$. $y = (3.942) + (0.077)$ ability to relax + (0.069) tension + (-0.030) individual practice test w + (0.025) practice with others .

Thus, the researcher has reached the equation of the predictive regression line for the standard sum of the tactical maps in terms of the fixed amount of the fourth contributor, and the equation is:

$y = (3.942) + m x^1 + m x^2 + m x^3 + m x^4$
 $y = (3.942) + (0.077)$ practice with others + (0.069) individual practice w + (-0.030) relaxation ability test + (0.025) practice with others

Recommendations:

1- Using the prediction equation extracted in the process of mental training under (15-17) years periodically and continuously.

2- Relying on the prediction equation used to assess the psychological and mental level.

3- Conducting other similar studies to measure the other aspects of the players (psychological).

4- Conducting other similar studies to measure the (psychological) aspects of male and female players in different age groups.

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