



The effect of mental training using NLP on developing thinking strategies and performance effectiveness in some individual sports

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Research problem and its importance:

including the exchange of effort and rest, and psychological, including the study of behaviors, experiences and mental processes associated with the sports individual during his practice of specialized sporting activity, with the aim of achieving integration between motor skills. And psychological skills to reach the mathematical formula. (9: 12)

Sport Psychology is one of the human sciences that aims to develop the performance of the individual athlete, by analyzing his behavior and identifying his experiences.

Subjectivity, taking into account the study of cognitive processes

Science is the fruit of human activities

throughout the ages and the

most present and most positive form of human civilization, and based on the fact that it is a concept that expresses the response of the many similar facts to the unity of principle or law, then mathematical psychology has responded to behavior, despite its differences, to one explanatory principle, which is personality .

With the beginning of the twenty-first century, modern sport witnesses successive leaps in both its physical dimensions,



mind, just as he spends a lot of time to train the body (33: 45).

There are four concepts related to the effectiveness of mental training, namely: motivation, symbolic perception, neuromuscular units involved in performance, and neuro physiological theory. (33:23)

Neuro-Linguistic Programming (NLP) emerged as a new science in the seventies of the twentieth century by two American scientists, "Richard Bandler" - a mathematician - and "John Grinder" - a linguist - as a scientific method to bring about integration between all One of the methods of human thinking, linguistic construction, and emotional internal forces, as this science searches for how to work on benefiting from these three components to find driving forces that lead man permanently towards change for the better.

NLP also contributes to providing the individual athlete with ways that help him to

such as perception, thinking and perception of this individual athlete, through the practice of sports activity, in addition to being one of the main pillars for identifying the psychological problems and obstacles faced by the individual athlete, while finding alternatives and solutions that allow him to follow his athletic competition To the best of his abilities and preparations.

Mental training is located as one of the dimensions of cognitive training, and one of the methods of controlling human behavior, because of its great impact on learning, acquiring and developing motor skills for the practiced sporting activity. And Muhammad al-Arabi points out that developing integration between the mind and body is the way towards discovering our true capabilities, with the availability of the tendency and desire of the athletic individual to spend some time to train the

training - contribute to Training Romania's Olympic team.(74: 169)

Sue Knight explained in her book "Neuro-Linguistic Programming at Work" that NLP is the study of what is going on in thought, language, and behavior. It is also a way to encode and reproduce superiority, which helps the individual achieve the results he wants for himself, his work, and his life. (21:9)

The term Strategy within the framework of NLP expresses how the player does what he does to reach the expected outcome, and from this standpoint, strategy is defined as a series of internal representations that lead to a specific outcome. (18:230)

Thinking strategies represent one of the important cognitive dimensions in reaching high levels of achievement in the mathematical field by isolating thinking and overcoming stress.

become more efficient and effective in implementing the requirements of training and competitive performance, more control over thoughts, emotions and behavior, better ability to achieve goals, and more positive interaction with the surrounding environment, if the player does not have With the same purpose or resources to accomplish what he wants, NLP helps him discover the skills and ways of those around him to think, and then integrate with them in their common positions, in order to be more successful as a team.(28:22, 16)

Irina Holdevici, in her research "Neuro-Linguistic Programming and Investing in Mental Training in Shooting Sports," indicates the extent of the pressures that athletes are exposed to during the final matches in shooting competitions, and the extent to which mental training programs - including neuro-linguistic programming mixed with skill

and age, and within the framework of the rules and laws, as it is practiced imaginatively under the name (Kata) in karate sport, (methods) in Wushu Kung Fu, and realistically under the name (Kumite) in karate sport, (Sinda Sanshu) in the sport of Wushu, Kung Fu.

Numerous studies have shown that individual sports are activities that require a high level of responsibility compared to team games.

The degree of competition anxiety and emotional arousal, which supports the urgent need to apply psychological programs that are compatible and integrated with the training program for the players of these activities to achieve emotional control during sports performance. (7: 48)

In the light of the foregoing, and by extrapolating studies related to mental training, and through the experience of the researcher as a player, referee and

Mureasnu also refers to the different strategies between individuals, so they must be pre-planned through studied expectations, attention control, and work on mental programming, so that more focus can be placed on motor performance and reaching the desired goals. (33:335)

The term Performance Efficiency expresses the player's ability and willingness to use the largest possible number of offensive and defensive thinking patterns (thinking strategies) to achieve his predetermined outcome during various competition situations.

Self-defense games - Karate and Wu shu Kung fu - are also one of the most important individual sports with direct contact, which depends on the player's use of motor skills - single and compound - offensive and defensive in a consistent manner consistent with the nature of the competitive situation. against a competitor of the same weight

situations, not making positive use of the performance intervals (when the opponent is injured - calling the court referee by the referees' table...), living with technical errors of previous rounds or matches and repeating about them, preoccupying himself with calculating points for himself. And for the competitor during the round or match to focus on performance.

The current research is an attempt to purify and process these experiences of the player through his senses, and translate these experiences using language, to achieve the best encryption of this language and this behavior within his mental program (Software of the Brain) - in an integrated format to reach neuro-linguistic programs and distinct models according to individual differences and the type of sports activity The practitioner, which reduces the influence of distracting factors for the player, achieves training goals (motor, emotional,

administrator in many sports clubs, the researcher noticed the scarcity of studies and research that focused on studying the neurophysiological theory compared to the rest of the concepts related to the effectiveness of mental training such as (motivation, symbolic perception, neuromuscular units involved in performance).

The researcher also noticed an increase in the rate of repetition of the same errors for the player during the match, the response to distraction, whether from the referee, the audience, colleagues or the opponent, negative emotional responses towards the referees' mistakes during the match, the negative expectation towards the player's personal performance with the presence of a referee or the performance of matches in a specific place Or meet a player in the first official tournament.

This is in addition to adhering to a routine thinking pattern during the various competition

- There are statistically significant differences between the pre-measurement and the post-measurement of the experimental group in the thinking strategies (positive self-talk, thinking about the skillful task, mood words, segmentation of performance, building goals, arousal, emotional control, mechanism, positive thinking) in favor of the post-measurement.

- There are statistically significant differences between the pre-measurement and the post-measurement of the experimental group in performance effectiveness (offensive behavior coefficient - defensive behavior coefficient - sports performance outcome) in favor of the post-measurement.

- The proposed mental training program using neuro-linguistic programming is effective in developing thinking strategies, the effectiveness of sports performance for the experimental group under study.

mental), develops thinking strategies, and increases offensive and defensive effectiveness throughout the period of sports performance.

research aims:

Building a mental training program using neuro-linguistic programming for the sample under study to identify its effectiveness in:

Develop basic mental skills.

Develop thinking strategies.

- Developing the effectiveness of performance in sports activity.

Research hypotheses:

- There are statistically significant differences between the pre-measurement and the post-measurement of the experimental group (mental training using neuro-linguistic programming), in the basic mental skills under study (relaxation - mental visualization - focus of attention) in favor of the post-measurement.

Research plan and procedures:

Research Methodology:

The researcher used the experimental method using one experimental group by means of pre-post-measurement, due to its suitability and the nature of this research.

research community:

Karate and Wushu Kung Fu players at the 6th of October Sports Club.

The research sample:

The research sample was chosen by the intentional method from the first-class players in the 6th of October Sports Club, where the sample size was (9) nine players who were registered in the Egyptian Karate Federation (Kumite), and Wushu Kung Fu (Senda) for the training season (2019-2020 AD), and a table shows (1) Statistical description of the research sample in the following variables.

search terms:

Mental Training

"A sequential training system that includes the strategies by which mental skills are used, and their employment in developing performance in different sports levels and developing public health.(33:30)

Neuro-Linguistic

Programming (NLP).

“The science and art of studying what happens in thought, behavior and language, whether verbal or non-verbal (body language), with the aim of developing and improving these components, to achieve positive change, distinction and excellence (52:15)

Individual Sports

It represents direct contact self-defense games in which the player uses all his offensive and defensive skills, in accordance with the nature of the competitive situation. (procedural definition)

Table (1)
Statistical description of the research sample in variables
(Height - weight - chronological age - training age - intelligence
level) (n = 9)

flattening	Normative	deviation	arithmetric mean	measruing unit	Measurement variable
- 0.81*	- 0.241*	8.70	181.66	cm	height
0.23*	0.686*	17.43	76.55	kg	weight
0.62*	1.30*	3.77	7.44	in years	chronological age
0.74*	- 0.892*	1.65	18.33	in years	training age
- 1.60*	- 0.195*	19.09	125.77	Degree	IQ level

chronological age - training age - intelligence level) ranged between (+ - 3), which indicates the homogeneity of the sample in the descriptive variables under study.

Table (1) It is clear that the arithmetic means and standard deviations of

the sample under study in the variables (height - weight -

Table (2)
Statistical description of the sample in the variables under study
(n = 9)

flattening	Normative	deviation	arithmetic mean	Measurement variable	
- 1.18*	0.642*	5.91	35.33	The ability to relax	relax
2.87*	1.46*	1.83	6.88	Facial muscle tension	
- 0.19*	- 0.201*	1.64	6.77	Arm muscle tension	
0.21*	1.21*	4.84	16.00	Trunk muscle tension	
- 1.77*	0.506*	5.89	11.44	Legs muscle tension	
- 0.20	1.02*	12.94	41.11	general relaxation	mental visualizati on
2.25*	1.28*	1.22	15.33	Visual perception	
- 0.33*	- 0.515*	2.34	12.33	auditory perception	
- 0.83*	- 0.092*	2.29	13.55	Sensory perception	
- 1.10*	0.038*	1.87	15.44	The emotional state	
0.16*	1.01*	1.71	15.77	Image control	Attention thinking strategies
1.23*	0.725*	2.57	6.88	Focus attention	
- 0.04*	- 1.01*	7.59	32.33	Positive self-talk	
- 0.88*	- 0.363*	5.40	29.33	Think of the skill assignment	
- 0.70*	- 0.618*	7.42	30.22	Mood words	
- 1.16*	- 0.652*	6.59	27.55	segmentation performance	performan ce effectiveness
- 1.33*	- 0.085*	4.33	32.55	Building goals	
- 1.88*	0.155*	5.26	29.33	arousal	
- 1.23*	- 0.360*	7.22	26.77	Emotional control mechanism	
- 0.61*	0.313*	5.71	23.77	mechanism	
0.27*	- 1.09*	2.06	13.44	Positive thinking	performan ce effectiveness
- 1.59*	0.004*	1.92	3.22	Successful attack	
- 0.286*	- 0.327*	1.87	4.33	failed attack	
- 1.70*	- 0.165*	0.233	0.428	Offensive behavior coefficient	
0.735*	0.789*	1.32	2.33	successful defense	
- 1.23*	- 0.188*	1.09	3.77	Failed defense	performan ce effectiveness
- 1.11*	0.096*	0.147	0.370	Defensive behavior factor	
0.410*	- 0.956*	0.119	0.407	The outcome of performance effectiveness	

ranged between (0.42-41.111) and (0.16-12.946), respectively, while the skewness values

By examining Table (2), the arithmetic means and standard deviations showed values that

The validity and reliability of previous research has been relied upon

Second: Tools for measuring skill variables:

7- Performance Efficiency Observation Form:

This questionnaire was prepared in its current form by "Abdul Fattah Khader" (2000) citing "Nikforov" and "Viktorov". The offensive and defensive behavior coefficient is calculated according to a formula, and in the end the outcome is calculated for the effectiveness of performance, by adding the offensive behavior coefficient plus the defensive behavior coefficient (Attachment 7).

Account of honesty and reliability:

The researcher found the stability of the questionnaire by finding the correlation coefficient between the application of the scale and its re-application, Test Retest, on a randomly selected sample from

ranged between (0.05-1.46). The flatness ranged between (0.04 - 2.87) for the sample in the research variables (the ability to relax - muscle tension - mental perception - focus attention - thinking strategies - performance effectiveness), which indicates the homogeneity of the sample in the descriptive variables under study.

Tools for measuring psychological variables:

1- The scale of intelligence free from the influence of culture, the second scale, picture (a). Test of "g": Culture Fair. Scales2 (Forms A)

2- Ability To Relax Scale

3- Muscle Tension Levels Cheat Card

4- Mental Imagery Scale In Sport

5- Grid Concentration Test

6- A measure of mental strategies in the sports field

Scale in sport mental strategies Scientific transactions for research tools:

consisted of (9) players. the research community, which

Schedule (3)
The stability coefficient of the performance effectiveness
observation form (n = 9)

coefficient	the second application		The first application,		Measurement variable
	deviation	arithmetic mean	deviation	arithmetic mean	
0.96	2.65	4.33	2.83	3.56	Successful attack
0.93	1.73	3.67	1.87	4.33	failed attack
0.82	0.22	0.52	0.22	0.42	Offensive behavior coefficient
0.89	1.27	3.11	1.50	2.33	successful defense
0.84	1.58	1.33	1.96	1.89	Failed defense
0.71	0.25	0.76	0.32	0.64	Defensive behavior factor
0.83	0.12	0.60	0.16	0.49	The outcome of performance effectiveness

The tabular value of (r) at the level (0.05) = (0.487)

- Developing some basic mental skills (muscle and mental relaxation - mental visualization - attention) using neuro-linguistic programming.

B- Program Axes and Dimensions:

The proposed program includes a set of the following main axes and dimensions:

The first axis: Basic mental skills: Basic mental skills

The first dimension: muscular and mental relaxation.

The second dimension: the basic mental perception.

The third dimension: attention.

Table (3) shows that the value of the correlation coefficient between the first and second applications of the performance effectiveness observation form ranged between (0.71: 0.96), which are statistically significant values at the level (0.05), which indicates the stability of the scale.

The proposed program for mental training using neuro-linguistic programming:

A- Program Objectives:

The proposed program aims to:

The first dimension: the inner feeling.

The second dimension: the external sense.

The third dimension: models of internal representations.

The fourth dimension: the emotional state.

Fifth dimension: values and beliefs.

The second axis: the mental skills of karate and wushu kung fu

Special Mental Skills For Karate And Wu Shu Kung Fu

The first dimension: multi-dimensional mental perception.

The second dimension: focus attention.

The third axis: Neuro-Linguistic Programming

Schedule(4)

Time distribution and percentages And the number of training units for the dimensions of the proposed mental training program

minutes Percentage	Total time e	Number of units	Number of training units, time and percentage
22.22%	240	8	Basic mental skills
16.67%	180	6	special mental skills
61.11%	660	22	NLP
100%	1080	36	the total

Preparing the place designated for the experiment.

- Coordinating with the technical and administrative staff to determine the appropriate time to conduct the experiment.

Tribal measurements:

Tribal measurements were made for the experimental research group in all the

Exploratory study:

The researcher conducted the exploratory study for (9) players from the research community and in all research variables, during the period from (1/8/2019) to (5/8/2019), and the study resulted in the following:

Ensure the validity of the research tools.

the period from (01/12/2019) to (05/12/ 2019) taking into account the same conditions and conditions that were followed in the pre-measurements.

Statistical processors:

The following statistical treatments were performed:

Descriptive statistics, including (arithmetic mean, standard deviation, skewness, flatness, correlation coefficient).

Presentation and discussion of results:

In light of the objectives, hypotheses and methodology of the research, the results of the research will be presented in the following order:

Presentation of results of mental skills using neuro-linguistic programming:

Table (11) shows the significance of the differences between the pre and post measurements in mental skills using programming for the experimental group.

specified variables under study, in the period from (10/8/2019) to (15/8/2019),

The application of the proposed program for neuro-linguistic programming:

The researcher applied the research experiment on the basic research sample, which consisted of (9) first-class players in (Karate - Wushu Kung Fu) in the Arab Republic of Egypt, during the period from (20/8/2019) to (20/11/2019) in the Karate hall. Wushu Kung Fu at the 6th of October Sports Club, 6th of October Governorate.

Dimensional measurements:

Dimensional measurements of the research group were conducted in the selected variables according to the following order: (the ability to relax - muscle tension card - mental perception - focus of attention - mental strategies - performance effectiveness) in

Schedule(11)

The significance of the differences between the two measurements Pre and post mental skills using neuro-linguistic programming(n = 9)

Sig	"Z"	ranks	mean	num	Statement	variants
0.00	- 2.68*	0	0	0	negative ranks	The ability to relax
		45	5	9	Positive ranks	
				0	evenness	
0.01	- 2.53*	28	4	7	negative ranks	Facial muscle tension
		0	0	0	Positive ranks	
				2	evenness	
0.04	- 2.04*	32.50	4.64	7	negative ranks	muscle tension for the arms
		3.50	3.50	1	Positive ranks	
				1	evenness	
0.02	- 2.37*	28	4	7	negative ranks	Trunk muscle tension
		0	0	0	Positive ranks	
				2	evenness	
0.01	- 2.68*	45	5	9	negative ranks	Muscular tension of the legs
		0	0	0	Positive ranks	
				0	evenness	
0.01	- 2.67*	45	5	9	negative ranks	general relaxation
		0	0	0	Positive ranks	
				0	evenness	
0.01	- 2.44*	1	1	1	negative ranks	Visual perception
		35	5	7	Positive ranks	
				1	evenness	
0.03	- 2.20*	1	1	1	negative ranks	auditory perception
		27	4.50	6	Positive ranks	
				2	evenness	
0.02	- 2.40*	0	0	0	negative ranks	Sensory perception
		28	4	7	Positive ranks	
				2	evenness	
0.03	- 2.21*	0	0	0	negative ranks	The emotional state
		21	3.50	6	Positive ranks	
				3	evenness	
0.01	- 2.56*	0	0	0	negative ranks	Image control
		36	4.50	8	Positive ranks	
				1	evenness	
0.02	- 2.38*	0	0	0	negative ranks	
		28	4	7	Positive ranks	
				2	evenness	

Wilcoxon tabular value at (0.05) < *

significant differences between the pre and post measurements

By examining Table (11), it is clear that there are statistically

Table (12) shows the significance of the differences between the pre and post measurements in the thinking strategies of the experimental group.

of the experimental group in the variables (relaxation, mental perception, attention focus) in favor of the post measurement.

Presentation of the results of the thinking strategies:

Schedule(12)
Significance of differences between pre and post measurements
in thinking strategies (n = 9)

Sig	"Z"	ranks	mean	num	Statement	variants
0.02	- 2.39*	0	0	0	negative ranks	Positive self-talk
		28	4	7	Positive ranks	
				2	evenness	
0.04	- 2.03*	0	0	0	negative ranks	Think of the skill assignment
		15	3	5	Positive ranks	
				4	evenness	
0.01	- 2.54*	0	0	0	negative ranks	Mood words
		36	4.50	8	Positive ranks	
				1	evenness	
0.02	- 2.37*	0	0	0	negative ranks	segmentation performance
		28	4	7	Positive ranks	
				2	evenness	
0.01	- 2.75*	0	0	0	negative ranks	Building goals
		45	5	9	Positive ranks	
				0	evenness	
0.03	- 2.21*	0	0	0	negative ranks	arousal
		21	3.50	6	Positive ranks	
				3	evenness	
0.03	- 2.11*	3	3	1	negative ranks	Emotional control
		33	4.71	7	Positive ranks	
				1	evenness	
0.02	- 2.37*	0	0	0	negative ranks	mechanism
		28	4	7	Positive ranks	
				2	evenness	
0.03	- 2.11*	3	3	1	negative ranks	Positive thinking
		33	4.71	7	Positive ranks	
				1	evenness	

Wilcoxon tabular value at (0.05) < *

Presentation of performance results:

Table (13) shows the significance of the differences between the pre and post measurements in the performance effectiveness of the experimental group.

By studying Table (12), it is clear that there are statistically significant differences between the pre and post measurements of the experimental group in all variables of thinking strategies in favor of the post measurement.

Schedule(13)
Significance of differences between the pre and post
measurements in performance effectiveness (n = 9)

Sig	"Z"	ranks	mean	num	Statement	variants
0.01	- 2.70*	0	0	0	negative ranks	Successful attack failed attack Offensive behavior coefficient
		45	5	9	Positive ranks	
				0	evenness	
0.04	- 2.06*	32.50	4.64	7	negative ranks	successful defense Failed defense Defensive behavior factor
		3.50	3.50	1	Positive ranks	
				1	evenness	
0.01	- 2.67*	0	0	0	negative ranks	The outcome of performance effectiveness Successful attack failed attack
		45	5	9	Positive ranks	
				0	evenness	
0.01	- 2.68*	0	0	0	negative ranks	Offensive behavior coefficient successful defense Failed defense
		45	5	9	Positive ranks	
				0	evenness	
0.01	- 2.56*	36	4.50	8	negative ranks	Defensive behavior factor Successful attack
		0	0	0	Positive ranks	
				1	evenness	
0.01	- 2.67*	0	0	0	negative ranks	failed attack Offensive behavior coefficient successful defense
		45	5	9	Positive ranks	
				0	evenness	
0.01	- 2.67*	0	0	0	negative ranks	Failed defense
		45	5	9	Positive ranks	
				0	evenness	

Wilcoxon tabular value at (0.05) < *

effectiveness in favor of the post measurement.

By examining Table (13), it is clear that there are statistically significant differences between the pre and post measurements of the experimental group in all variables of performance

for mental skills using language programming for the experimental group.

- Presentation of the results of the effectiveness of the proposed program:

Table (14) shows the percentages of improvement (effectiveness of the program)

Table(14)

Percentages of improvement in dimensional measurements over tribal ones In mental skills using neuro-linguistic programming (n = 9)

percentage	improvement		difference		Pre-post		Measurement	
	deviation	arithmetic mean	deviation	arithmetic mean	deviation	arithmetic mean		
11.63	- 0.67	4.11	5.25	39.44	5.92	35.33	The ability to relax	relax
21.04	0.47	- 1.45	2.30	5.44	1.83	6.89	Facial muscle tension	
37.76	0.41	- 2.56	2.05	4.22	1.64	6.78	muscular tension arms	
24.31	- 0.26	- 3.89	4.59	12.11	4.85	16.00	Trunk muscle tension	
34.97	- 0.22	- 4.00	5.68	7.44	5.90	11.44	Leg muscle tension	
28.92	- 2.23	- 11.89	10.72	29.22	12.95	41.11	general relaxation	
13.76	0.85	2.11	2.07	17.44	1.22	15.33	Visual perception	mental perception
28.87	0.50	6.56	2.85	15.89	2.35	12.33	auditory perception	
17.99	0.15	2.44	2.45	16.00	2.30	13.56	Sensory perception	
15.87	0.02	2.45	1.90	17.89	1.88	15.44	The emotional state	
13.37	- 0.10	2.11	1.62	17.89	1.72	15.78	Image control	Attention
30.62	0.26	2.11	2.83	9.00	2.57	6.89	Focus attention	

under study in favor of the post-measurement, where the improvement rates ranged between (11.63% - 37.67%) for each of the ability to relax and stress. The muscular arms of the arms respectively, and the

By examining Table (14), it is clear that the rates of improvement of post-measurements from the pre-measurements have increased in all mental skills using language programming for the sample

(37.67%), and the ability to relax came as the lowest improvement rate (11.63).

Presenting the results of the effectiveness of the proposed program (thinking strategies):

Table (15) shows improvement rates (program effectiveness) in thinking strategies

for the experimental group.

descending order of the variables is as follows (tension of the arms - tension of the legs - focus of attention - general relaxation - auditory perception - tension of the torso - tension of the face - sensory perception - emotional state - visual perception - image control - ability to relax) The muscle tension of the arms recorded the highest improvement rate

Table(15)
Percentages of improvement in dimensional measurements over tribal ones in thinking strategies (n = 9)

percent taje	improvement		difference		Pre-post		Measurement
	deviati on	arith metic mean	deviati on	arithm etic mean	deviat ion	arithme tic mean	
14.44	- 3.96	4.67	3.64	37.00	7.60	32.33	Positive self-talk
10.60	- 0.02	3.11	5.39	32.44	5.41	29.33	Think of the skill assignment
13.24	- 3.11	4.00	4.32	34.22	7.43	30.22	Mood words
14.91	- 0.81	4.11	5.79	31.67	6.60	27.56	segmentation performance
9.21	- 0.14	3.00	4.19	35.56	4.33	32.56	Building goals
9.10	- 0.07	2.67	5.20	32.00	5.27	29.33	arousal
9.11	- 0.17	2.44	7.05	29.22	7.22	26.78	Emotional control
14.00	- 1.10	3.33	4.62	27.11	5.72	23.78	mechanism
15.77	1.54	2.12	3.61	15.56	2.07	13.44	Positive thinking

thinking strategies

improvement of post-measurements increased from

By examining Table (10), it is clear that the percentages of

positive thinking recorded the highest percentage of improvement (15.77%) And arousal came as the least improvement percentage (9,10).

Presenting the results of the effectiveness of the proposed program (performance effectiveness):

Table (16) shows the percentages of improvement (program effectiveness) in the performance effectiveness of the experimental group.

the pre-measurement in all variables of thinking strategies of the sample under study in favor of the post-measurement, where the improvement rates ranged between (9.10% - 15.77%) for both arousal and positive thinking, respectively. The descending order of the variables was as follows (positive thinking - segmentation of performance - positive self-talk - mechanism - mood words - thinking about skillful duty - building goals - emotional control - arousal), and

Schedule(16)

Percentages of improvement in dimensional measurements over tribal ones In performance effectiveness (n = 9)

percentage	improvement		difference		Pre-post		Measurement
	deviation	arithmetic mean	deviation	arithmetic mean	deviation	arithmetic mean	
110.34	0.46	3.56	2.38	6.77	1.92	3.22	Successful attack
- 43.59	0.53	- 1.89	2.40	2.44	1.87	4.33	failed attack
72.73	0.02	0.31	0.251	0.739	0.233	0.428	Offensive behavior coefficient
119.05	1.05	2.78	2.36	5.11	1.32	2.33	successful defense
- 67.65	0.00	- 2.56	1.09	1.22	1.09	3.77	Failed defense
117.72	0.03	0.44	0.173	0.806	0.147	0.370	Defensive behavior factor
88.52	0.05	0.36	0.166	0.767	0.119	0.407	The outcome of performance effectiveness

فعالية الأداء

Second: Discussing the results:

- Discussing the results of mental skills using programming:

The results of Table (11) showed that there are statistically significant differences between the pre and post measurements in the variables (relaxation, mental perception, attention focus), in favor of the post measurement, and the researcher attributes this result to:

- The effect of the proposed program using neuro-linguistic programming in reaching the optimal general muscle relaxation level for the upper and lower extremities by:

- Develop a sense of the difference between tension and muscle relaxation of all muscle groups of the body.
- The use of Milton Erickson's suggestive language to reach a state of trance through metaphors, linguistic summaries and incomprehensible words during the sessions, gave the

By examining Table (11), it is clear that the rates of improvement of the post-measurements increased from the pre-measurements in all variables of performance effectiveness for the experimental group in favor of the post-measurement, as the improvement rates ranged between (43.59%-119.05%) for each of the failed attack and successful defense, respectively. The descending order of the variables was as follows (failed attack - failed defense - offensive behavior coefficient - the outcome of performance effectiveness - defensive behavior coefficient - successful attack - successful defense). Successful defense recorded the highest improvement rate (119%), and the failed attack came as the lowest percentage. improvement (43.59%).

These results agree with what was indicated by "Ndvir" (1992) that slow progress without haste leads to better results in mental training. Where eight (8) training sessions were implemented on these skills.

- The researcher's use of visual, auditory, sensory and emotional differentiation techniques added a closer level to the realistic state of mental perception - increasing the ability to clarify and control the mental image - during the training sessions, which had a positive impact on the acquisition and development of mental perception skills and focus of attention.

These results fulfill the first hypothesis, which states:

"There are statistically significant differences between the pre-measurement and the post-measurement of the experimental group (mental training using neuro-linguistic programming), in the basic mental skills under study (relaxation - mental

player the largest amount of choices, recalling sensory experiences (multiple mental perception) that correspond to the words, and thus the speed of access to muscle and mental relaxation.

- Strengthening the interest in the mental room as the best place in which the player feels relaxation and privacy, and giving him the ability to control the discharge of muscle tensions and negative thoughts such as (the feeling of muscle tension, anxiety, tension or defeat ...) as soon as he feels it, and supporting the positive energies that he feels The need for it, such as (activity - vitality - self-confidence - focus in performance...).

- Slow ascending training of mental skills in a hierarchy according to their importance (relaxation, mental imagery, focus of attention) had a positive impact on achieving the required benefit from these skills.

- The transmission of the effect of training resulting from sufficient content of the training modules of the programming model in question (2) training modules, which allowed the development of the players' capabilities in eliciting multiple thinking patterns in a sequential manner.

- The researcher's use of the details of the language of dialogue (present tense) when talking about a previous success strategy for the player, contributed to fixing its parts in the mind and the ability to repeat it. For example, the coach says to the player, "I see victory in your eyes."

- The introduction of motivating presuppositions such as "choosing is better than not choosing" within the player's routine system, leading to the reconfiguration of all the representational systems and sub-arguments of the player's successful thinking strategies,

visualization - focus of attention) in favor of the post-measurement."

Discussing the results of thinking strategies:

The results of table (12) showed that there were statistically significant differences between the pre and post measurements of the experimental group in all variables of thinking strategies (positive self-talk, thinking about skillful assignment, mood words, segmentation of performance, building goals, arousal, emotional control, mechanism, and positive thinking). In favor of the dimensional measurement, the researcher attributes the reason for this to:

- The use of the basic model of the strategy in neuro-linguistic programming (TOTE) (test - run - test - exit), which magnifies the principle of accurately formulated results, as it contributed to the improvement of offensive and defensive thinking methods.

positive concepts for individuals and achieve specific results.

These results verify the second hypothesis, which states:

There are statistically significant differences between the pre- and post-measurement of the experimental group in the thinking strategies under discussion in favor of the post-measurement.

- Discussing the results of performance effectiveness:

The results of Table (13) showed that there were statistically significant differences between the pre and post measurements of the experimental group in all variables of performance effectiveness (successful attack, failed attack, offensive behavior coefficient, successful defense, failed defense, defensive behavior coefficient, performance effectiveness outcome) in favor of the post measurement. The researcher attributes the reason for this to:

which contributed to the development of these strategies.

- The researcher's use of the sensory language (the language of the senses) in the score writing exercises during the sessions with the players, contributed to each player knowing his score well, and thus reducing the level of physical and cognitive anxiety, while increasing the focus of attention on the stimuli required only in the performance.

- Repetition of the use of short affirmative affirmative sentences in the dialogue with the player, contributed to the speed of understanding the conscious mind of them, and their implementation with the ease of their formation within the mental program of the player.

These results agree with what Fouad Al-Dawash (2005)(28) indicated that presuppositions and feedback are among the most important principles of NLP that seek to support

response to deceptive movements), and exit upon reaching the desired state (performing the attack successfully and obtaining a point), thus increasing the rate of effectiveness of performance during matches.

- Repeated use of the TOTE model allows the conscious mind to be directed to the unconscious mind to control performance with a successive series of offensive and defensive combined attacks, while evoking a state of integration in performance, and automatic reactions that precede the competitor's attention rates.

These results agree with what was indicated by Joseph O'Connor (2007) (18) that the change occurs entirely at the subconscious (unconscious) level first, and after that the player becomes aware of it.

- Developing differentiation skills of all kinds (visual, auditory and sensory) and training them, so that the

- The effect of the proposed program in developing the mental skills under discussion, in the face of stress and anxiety associated with sports competition, which led to the development of the players' ability to implement the requirements of sports performance in a consistent manner.

- The use of sensory connections (anchors) and training on them contributed significantly to evoking a positive emotional state immediately before the competition, which supported self-confidence and focus in performance.

- Players use the TOTE model to confirm the existence of a specific outcome (successful attack), and clear executive steps (determining the striking distance - deceptive moves...), testing to ensure orientation towards the outcome (opening the competitor to the target attack location - the competitor's

The results of Table (14) showed that there was an increase in the percentages of improving the measurements remote from the tribal for the experimental group in mental skills using neuro-linguistic programming, as it ranged between (11.63% - 37.76%) for each of the muscle tension of the arms and the ability to relax, respectively, due to The researcher reasons for this:

The importance of the relaxation skill in reducing the level of muscular and mental tension, in addition to being the first step on which other mental skills depend in the pyramid of mental training, as the results confirmed the highest improvement rate in all research variables in favor of the ability to relax, and this is an indicator of the development of Mental skills that depend on relaxation in achieving their goals, such as (mental visualization, focus of attention).

players have an integrated image of feelings of positive and successful competitive experiences, which affected the ease of recalling these processing experiences (restored in the mind), and their positive impact on the effectiveness of performance.

- Training players to maximize the use of their own style (Special Style) during imaginary matches, which contributed to the development of compound motor skills in (Karate and Wushu Kung Fu) for the sample under study.

These results fulfill the third hypothesis, which states:

"There are statistically significant differences between the pre-measurement and the post-measurement of the experimental group in (performance effectiveness) in favor of the post-measurement."

- Discussing the results of the effectiveness of the proposed program

- Deepening the hypothesis that there is a solution to every problem, which led to the development of offensive thinking methods, with many alternatives available during difficult competitive situations.

- Focusing attention on the stimuli that precede the opponent's attack, led to an increase in the rate of using successful defensive methods.

- The use of the breathing control method also showed effective results in maintaining the optimal level of arousal, especially in the period preceding entry to the competition.

- Benefiting from the interval times during the matches contributed to the rapid change of the negative emotional state to a positive one. Thus mobilizing the latent capabilities of the players, and its positive impact on the effectiveness of sports performance.

These results are consistent with what Irina Holdevici (1990)(74)

The results also showed Table (15) that there was an increase in the percentages of improvement of measurements and remoteness from the tribal of the experimental group in thinking strategies, as it ranged between (9.10% - 15.77%) in arousal and positive thinking, respectively, and the researcher attributes this to:

- The extent to which the proposed program contributed to the development of offensive and defensive thinking strategies and their outcomes, and the development of dealing with sudden problems during competition by applying the TOTE model.

The results, table (16), also showed an increase in the percentages of improvement of the post-test measurements for the experimental group in the effectiveness of performance, as it ranged between (43.59% - 119.05%) for each failed attack and successive defense, and the researcher attributes this to:

attention, developing thinking strategies, and the effectiveness of specialized sports performance for the sample under study.

2- The application of basic mental skills is an essential entry point for developing thinking strategies for the individual athlete in training or competition, with the need to include them within his routine program.

3- The development of the skill (general relaxation and relaxation of the torso and the legs) contributes in particular to increasing the effectiveness of the performance of the self-defense sports in question (Karate and Wushu Kung Fu).

4- The implementation of the usual psychological requirements during the interim times of sports performance, allows to restore the ideal level of muscular and mental relaxation, and thus maintain optimal performance effectiveness during training and competition situations.

indicated in the positive effect of internal visual differentiation exercises in changing negative beliefs into positive ones, and in reducing the psychological pressure on the players.

These results fulfill the fourth hypothesis, which states:

The proposed program of mental training using neuro-linguistic programming is effective in developing thinking strategies, the effectiveness of sports performance for the experimental group under study.

Conclusions and recommendations

First: Conclusions:

In the light of the objectives and hypotheses of the research and the methodology used, and within the limits of the research sample and through statistical analysis, and based on the results that have been reached, the following can be concluded:

1- The effectiveness of the proposed NLP program in developing relaxation skills, mental visualization, focusing

NLP and basic mental skills:

- 1- Using the (TOTE) model (test-run-test-finish) in implementing several offensive and defensive thinking strategies in a sequential and sequential manner within the psychological preparation program for dueling players (karate and wushu kung fu).
- 2- Using other models of neuro-linguistic programming such as (problem analysis model - solution model - unified field model ...) to develop thinking strategies and the effectiveness of sports performance.
- 3- Emphasis on training basic mental skills, which are no less important than training motor skills for karate and wushu kung fu players in particular, and self-defense players in general.
- 4- Defining and announcing a clear and specific vision and message for the sports team (karate and wushu kung fu) and reiterating the steps to achieve it, allowing it to be consolidated as a positive value and belief

5- Modeling contributes to the conscious exploration of the constituent elements of the player's performance, and thus it is possible to analyze and classify his goals and behavior, leading to the automatic performance.

6- Developing negative values and beliefs, and replacing them with positive presuppositions (principles of programming), contributes to stimulating the mind and body to reveal the player's latent capabilities.

7- The use of the TOTE model has a great impact in building goals by defining a clear outcome for the player (the current situation), and testing implementation steps realistically, passing through positive feedback, to reach the desired situation.

Second: Recommendations:

Within the limits of the research results and based on the conclusions reached, the researcher recommends the following:

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within the mental program of the players.

5- Achieving the principle of communication and intimacy between the administrative and technical staff and the players.

6- Developing and developing players' use of different senses in retrieving positive performance experiences (sound, image and feeling).

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