

Impact Using Some Mental Strategies Supported by Practical performance on Learning Discus Compete for Female Students of Faculty of Physical Education in Sadat City

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Preface & Research's Problem

The mental strategies represent the final phase of mental training after performing the basic mental training and individual skills for sporting activity including the practicing and suitable mental training which directs the tension and increases self-confidence to solve the problems pre-post the performance .

Dr. Muhammad Al-Arabi sees (2000) the mental strategies include all kind of behavior and ideas since starting and ending the contest in addition to all the rehabilitation and calmness procedures followed after the contest identifying the strategies done. (22:22)

The task specific strategy represents a thinking contain to

concentrate on the technical sides as effort exerted and move track, also decreasing the feeling of tiredness or boredom many sporting psychiatrists assure on the importance of using task specific strategy to better the skillful performance and to release the tension and anxiety before the contest.(5:54)

The positive self-talk strategy represents the key of perception control. It's too important to know how the mind acts and affects on the feelings, thoughts, moves and actions specially in positive self-talk leading to increase the performance level of different skills, to decrease the tension and to increase the opportunities to achieve the goal. Whereas the same

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strategy is destructive when the athlete speaks negatively and regains the previous bad experience humiliating himself and comparing with the rival.(14:324)

The psychological skills is a learning ability acquiring training. The player is to acquire the moving skills and to perfect to do them well.(24:192) The training of psychological skills (ability of relaxation – mental imagery–concentration) contributes to give the player a privilege and sometimes to be an arbitrator for sporting success.(24:193)

The competition of discus throwing is considered one of the field and track contests scheduled on the second year of faculty of physical education for girls, Sadat university. The students should be perfect to achieve better level.

This contest requires self-confidence, high intellectual presents, high relaxation and mental imagery for technical phases.

So, the researcher noticed through exams

decreasing the technical and digital performance level in discus throwing in spite of training. That was because of oral explanation of learning the skill. The way of teaching leads to negativity of the student also, the profs of educational process depended on physical and technical sides more than the mental one. These outcomes have been got by the interviews with the staff of faculty solutions should be put to overcome that problem. The researcher finds out to handle this problem to transfer the state of time (especially during the applicable test) to another features more positive to be awarded to keep the performance well through the discus throwing. A proposal program by mental strategies should be put (Task specific strategy – positive self-talk) supported by practical performance to develop some mental strategies (ability of relaxation – mental imagery–concentration) to learn the skill of discus throwing.

Through the lexical survey of scientific studies

connected with the same subject (8, 12, 13, 17, 23, 30) .

The researcher - as she mentioned – didn't find any Arab or foreign study handled with the same subject mentioned before.

Hence, the problem of research appeared to identify the impact of using some mental strategies (Task specific strategy – positive self – talk) supported by practical performance to develop some psychological skills and learning the skill of discus throwing for the students of 2nd year of faculty of physical education for girls in Sadat city.

The rare of scientific researches in the competitions of field and track specially the mental strategies supported by practical performance. Thus, the researcher sees this subject could be vital.

Research aims:

This research aims to put a proposal program by using some mental strategies (Task specific strategy – positive self-talk) supported by

practical performance and identifying the impact on:

- 1- Psychological skills (ability of relaxation – mental imagery– concentration).
- 2- Level of technical and digital performance of discus throwing.

Research's hypotheses:

- 1- There are reliability differences between pre-post measurement of experimental group in the psychological skills (ability of relaxation – mental imagery – concentration) for the sake of after measurement whereas aren't reliability differences between pre-post of controlling group in the psychological skills.
- 2- There are reliability differences between pre-post for experimental and controlling groups in psychological skills (ability of relaxation – mental imagery - concentration) for the sake of experimental group.
- 3- There are reliability differences between pre-post measurement for experimental

and controlling groups in the technical and digital performance level of discus throwing for the sake of after measurement.

4- There are reliability differences between pre-post measurement for the experimental and controlling groups in the technical and digital performance level of discus throwing for the sake of experimental group

Research's procedures:

Research's method:

The research used the experimental method by pre-post design for experimental and controlling groups.

Research's community & sample:

The sample was purposive chosen for the students of second year in faculty of physical education, Sadat city university in the 2nd term 2012/2013 totally (80) students. The researcher chose the sample by purposive (40)

students equivalent 50% and (10) ones were excluded. Then the sample was (30) students; divided into two groups; one of them experimental and the other controller.

Data tools:

Firstly: psychological tests:

- 1- 3Kg. medical ball test (measuring for arms muscles)
- 2- Back muscles test (measuring for back muscles)
- 3- Rope test (measuring for harmony)
- 4- Trunk rotation test (measuring dynamic flexibility)
- 5- Bass test (measuring dynamic balance)

Secondly: psychological Test:

- 1- Ability of relaxation test.
- 2- Mental imagery.
- 3- Concentration test.
- 4- Intellectual perception test.

Thirdly: Evaluation of technical and digital performance level in discus throwing:

The grade of technical performance level of discus throwing for the two groups was calculated by three referees each one gives a grade out of (10), then the average of the three referees was taken according to the international law of athletics for amateurs.

Proposal mental strategy :

Aims of strategies:

The mental strategies (task specific strategy – positive self-talk) supported by practical performance aim to:

- 1- Developing the basic psychological skills (ability of relation – mental-muscular imagery – concentration).
- 2- Learning and perfecting the skill of discus throwing.

Dimensions strategies:

The proposal strategies depend on many axes

First dimension: basic mental training.

First measurement: muscular and mental relaxation.

This measurement represents one of the important factors in the proposal mental strategies. The imaginative relation method was used (Appendix no.4)

Second measurement: mental imagery :

It is considered one of the proposal mental strategies which clearly reflects the impact of mental training phase in the program. This measurement relies on forming image, then forming clear mental image through attaining the mental room, after that the skill of discus throwing is imaged through regaining factual image. (sight – hearing – moving sense – irritating case) were involved in the performance measurement.

Third measurement: Concentration

It is considered one of the proposal mental strategies

which effectively contributes in achieving goals. The training of concentration were used in technical performance phases for the skill of discus throwing (carrying – twisting – rotation – throwing – getting rid- balance or covering).

Second Dimension: mental strategies

First measurement: Task specific strategy

It is the basic proposal mental strategies. The training of task specific strategy were used through the multi-measurement mental imagery . The phases of technical performance for discus throwing is imaged including sight perception hearing perception, moving – sense perception and irritating case also, controlling of perception concentrating on the technical requirements of good performance.

Second & measurement: positive self-talk

It is the basic proposal mental strategies the training of positive self-talk were used to

affection the feelings and thoughts to improve performance level by positive self phrases such as (I have self-confidence – I'm the best one to perform – I have supreme spirit – I'm not afraid of test).

Those phrases may lead to positive impacts for learning and perfecting the skill of discus throwing.

Third measurement: Practical performance of discus throwing skill

The researcher refers to oral explanation was done for (5) minutes, then the mental strategy contain was applied for (20) minutes, after that the trainings of warming up were made for (10) minutes finally the educational steps were implemented for learning discus throwing skill, in addition to more difficult skillful trainings to perfect discus throwing for (25) minutes supported to the mental strategies.

Timing distribution of proposal strategies:

According to the lexical survey for studies (8, 12, 15,

17, 23, 30), the period of program is (6) weeks, (2) units weekly, totally (12) educational units, the timing of each unit is (60) minute.

Fundamental study:

The researcher taught two educational units for the basic sample to reach a reasonable level through the before measurement from 27/2/2013 to 5/3/2013.

Pre- measurement:

Pre- measurement of sample relating to growing rates (timing – length – weight – intelligence) and physical and psychological were made between the two groups (experimental – controlling) and the technical and digital performance level in discus throwing from 7/3/2013 to 10/3/2013.

Table (1)

The differences between the experimental and controlling groups in growing rates and physical and psychological variables and technical and digital performance level in discus throwing

Statement Variables	Unit	Experimental		Controlling		T
		N= 15		N= 15		
		Mean	standard deviation	Mean	standard deviation	
Timing	Year	19.63	0.58	19.47	0.62	0.69
Length	CM	163.55	5.73	162.81	5.29	0.36
Weight	KG	61.70	4.48	60.65	4.52	0.62
Perceptive intelligence	Grade	44.25	5.11	43.50	5.27	0.55
Arms' muscles	M	4.77	0.55	4.65	0.49	0.41
Homogeny	Grade	2.30	1.03	2.25	1.01	0.13
Dynamic flexibility	Inch	20.11	2.78	19.75	2.32	0.33
Dynamic balance	Grade	69.57	4.42	69.0	4.61	0.33

Follow Table (1)

The differences between the experimental and controlling groups in growing rates and physical and psychological variables and technical and digital performance level in discus throwing

Statement Variables	Unit	Experimental		Controlling		T
		N= 15		N= 15		
		Mean	standard deviation	Mean	standard deviation	
Ability of relaxation	Grade	35.79	3.61	35.20	3.49	0.44
Mental imagery	Grade	61.13	4.98	60.51	5.13	0.32
Concentration	No.	9.55	1.16	9.37	1.11	0.42
Performance level of discus throwing	Grade	0.87	0.51	0.81	0.50	0.31
Digital level of discus throwing	M	5.91	1.72	5.77	1.63	0.22

"T" value at 0.05= 2.048

It's clearly shown from table "1" that there aren't reliability differences at level "0.05" between the experimental and controlling groups in growing rates (timing – length – weight – intelligence) and physical and psychological variables, and the technical and digital level of discus throwing.

Application of proposal mental strategy:

The proposal program was applied by using some mental strategies supported by practical performance

(appendix 5) from 12/3/2013 to 22/4/2013 on experimental group "2units weekly".

The timing of each "60" minute. Whereas the controlling group made the traditional way by order through the oral explanation for discus throwing, "2 units weekly" (appendix 6).

Post- measurement:

The after measurement have been done as the same way done in Pre- measurement from 23/4/2013 to 25/4/2013

Display & outcomes discussion:

**Firstly: displaying and hypothesis
discussing the results of 1st**

Table (2)

**Differences between the pre-post measurement for experimental
group of psychological variables**

Statement Variables	Unit	Experimental		Controlling		<u>difference</u>	T
		N= 15		N= 15			
		Mean	Stand- ard deviat- ion	Mean	Stand- ard deviat- ion		
Ability of relaxation	Grade	35.79	3.61	42.25	4.83	6.46	4.29
Mental imagery	Grade	61.13	4.98	70.51	5.16	9.38	5.14
Concentration	No.	9.55	1.16	11.73	1.24	2.18	4.96

"T" value at level 0.05 = 2.145

It's clearly shown from table "2" that there are reliability differences at level "0.05" between the pre-post measurement for experimental group of psychological variables (ability of relaxation – mental imagery – concentration) for the sake of Post-measurement.

The researcher said that the betterment of psychological skills done for the experimental group because of applying the proposal mental strategies including a lot of psychological styles as muscular.

Relaxation (frequent – unit breathe) mental relaxation (controlling breath) mental imagery (clearing perception controlling perception – multi – sides perception) concentration (internal anger – external anger), task specific strategy and positive self-talk. This outcome agrees with what Dr. Muhammad Al-Arabi said (2000) that the mental strategies play an important role to decrease the tension, anxiety and calmness to achieve better results.(22:158)

Fatma Ahmad (2001, 8), Anderson (2002, 3), Mahmoud Mousa (2005, 13), Liu Zhang (2007, 10), Mahmoud Abdul-Salam (2008, 12), Muhammad Akhdar Asmar and Tahseen

Ali (2009, 17), Muhammad Al-Sayed (2014, 23) and Rashad Tarek (2012, 30).

Agree with the study's outcomes.

Table (3)

Differences between the pre-post measurement of controlling group in the psychological variables. N = 15

Statement Variables	Unit	Before Dim		After Dim		<u>difference</u>	T
		Mean	standard deviation	Mean	standard deviation		
Ability of relaxation	Grade	35.20	3.49	36.17	3.57	0.97	0.64
Mental imagery	Grade	60.51	5.13	62.33	4.97	1.82	0.91
Concentration	No.	9.37	1.11	10.00	1.15	0.63	1.15

"T" value at level 0.05 = 2.145

It's clearly shown from table "3" that there aren't reliability differences between pre-post measurement at level "0.05" for the controlling group in the psychological variables (ability of relaxation – mental imagery – concentration).

The researcher sees that the result achieved because of the normal training was sufficient

and there was no need to use the proposal program of mental strategies connected with the skill.

The first research's hypothesis Was achieved
Secondly: displaying and discussing the results of research's second hypothesis.

Table (4)
Differences between the pre-post measurement for the experimental and controlling groups in the psychological variables.

Statement Variables	Unit	Experimental group N= 15		Controlling group N= 15		<u>T</u>
		Mean	standard deviation	Mean	standard deviation	
Ability of relaxation	Grade	42.25	4.83	36.17	3.51	3.11
Mental imagery	Grade	70.51	5.16	62.33	4.97	4.28
Concentration	No.	11.73	1.24	10.00	1.15	3.83

"T" value at level 0.05 = 2.048

It's obviously shown from table "4" that there are reliability differences between the two after measurement for the experimental and controlling groups at level

"0.05" in the psychological skills (ability of relaxation – mental imagery – concentration) for the sake of the experimental group.

Table (5)
Ratios of betterment for the after measurement for the experimental and controlling groups in the psychological variables.

Statement Variables	Unit	Experimental group N= 15			Controlling group N= 15		
		Mean	standard deviation	Ratio of betterment	Mean	standard deviation	Ratio of betterment
Ability of relaxation	Grade	35.79	42.25	18.05%	35.20	36.17	2.76%
Mental imagery	Grade	61.13	70.51	15.34%	60.51	62.33	3.01%
Concentration	No.	9.55	11.73	22.83%	9.37	10.00	6.72%

It's obviously shown from table "5" that the experimental group promoted the controlling group in the ratios of betterment for the Post- measurement more than the Pre- measurement in the psychological variables.

The researcher clarified that the betterment of experimental group because of the effectiveness of proposal mental strategies (task specific strategy – positive self-talk) to improve the psychological skills.

This outcome compromises with the importance of using mental strategies (task specific strategy – positive self-talk) to

develop the psychological skills (Moustafa Bahi and Samir Abdul-Kader – 1999), to direct tension and to increase the sporting confidence.(16:30)

This outcome compromises with the studies results of (Anderson 2002, 3)/ (Mahmoud Abdul-Salam Farag 2008, 12) and (Muhammad Al-Sayed Moustafa 2010, 23) to use the mental strategies to promote the psychological skills comparing with the traditional way of training.

The second research's hypothesis was achieved
Thirdly: displaying and discussing the results of third hypothesis.

Table (6)
Differences between pre-post measurement for experimental group in the level of technical and digital performance for discus throwing.

Statement Variable	Unit	Before measurement		After measurement		difference	T
		Mean	standard deviation	Mean	standard deviation		
Level of technical performance in discus throwing	Grade	0.87	0.51	8.57	0.69	7.70	26.46
Digital level of discus throwing	M.	5.91	1.72	19.35	1.23	13.44	23.99

"T" value at level 0.05 = 2.145

It's obviously shown from table "6" there are reliability differences between pre-post measurement for experimental group at level "0.05" in the technical and digital performance level of discus throwing for the sake of post-measurement.

The researcher clarified that the proposal mental strategies positively affected on the ability of relation, discus throwing perception and concentration, in addition to, on the phases of technical performance of the skill and the educational steps as a part of mental strategies leading to learning and perfecting the skill of discus throwing.

This outcome compromises with what Dr. Osama Rateb (2000) referred to the moving

skill mental imagery may help the player to achieve more concentration when the student regains the image of the performance (discus throwing skill) to customize the success.(28:319)

This outcome also compromises with the studies' outcomes of (Fatma Ahmad 2001, 8), (Anderson 2002, 3), (Mahmoud Mousa 2005, 13), (Liu Zhang 2007, 10), Muhammad Khedr Asmar and Tahseen Ali 2009, 17) and (Rashad Tarek 2012, 30).

In this context, Moufti Ibrahim Sayyad (2002) refers that the mental processes promotion as concentration and remembering play a vital role to achieve better efficiency for skillful performance.(15:145)

Table (7)
Differences between the pre-post measurement of controlling group in the level of technical and digital performance for discus throwing.

Statement Variables	Unit	Before measurement		After measurement		difference	T
		Mean	standard deviation	Mean	standard deviation		
Technical performance level discus throwing of	Grade	0.81	0.50	7.73	0.54	6.92	24.17
Digital performance level of discus throwing	M	5.77	1.63	18.00	1.39	12.23	20.51

It's obviously shown from table "7" that there are reliability differences between pre-post measurement for controlling group at level (0.05) in the level of technical and digital performance at discus throwing for the sake of Post- measurement.

The researcher clarified that the betterment because of

the staff of educational process to present the oral explanation and to show a good example of skill, then to correct the mistakes done.

The third research's hypothesis
Is achieved

Fourthly: displaying and discussing the outcomes of the fourth research's hypothesis.

Table (8)

Differences between the two measurement of experimental and controlling groups in the level of technical and digital performance level for discus throwing skill.

Statement Variables	Unit	Experimental group N= 15		Controlling group N= 15		T
		Mean	standard deviation	Mean	standard deviation	
Technical level of throwing discus	Grade	8.57	0.69	7.73	0.54	3.57
Digital level of throwing discus	M	19.35	1.23	18.00	1.39	2.72

"T" value at level 0.05 = 2.048

It's obviously shown from table "8" that there are reliability differences between the two post- measurement for experimental and controlling groups at level 0.05 in the level of technical and digital performance of discus

throwing for the sake of the controlling group.

The researcher clarified that the betterment of the controlling group because of using the proposal mental strategies (task specific strategy – positive self-talk)

supported by practical performance in the development of psychological skills. hence, it positively affected on the level of technical and digital performance of discus throwing skill.

This outcome compromises with what (Osama Rateb 2000) referred to the psychological skill has an

effectiveness with the closed moving skill (discus throwing skill) where it may help the perception process to direct the concentration to achieve the climax at discus throwing without any legal mistake. The athlete could avoid the negative ideas as a main source of anxiety and tension during the contest.(28:332-335)

Table (9)

Ratios of betterment after measurement for experimental and controlling in the level of technical and digital performance of discus throwing skill

Statement Variables	Exper. Group N = 15			Contr. Group N = 15		
	Before	After	Ratio of betterment	Before	After	Ratio of betterment
Level of technical performance of discus throwing	0.87	8.57	885.06%	0.81	7.73	854.32%
Level of digital performance of discus throwing	5.91	19.35	227.41%	5.77	18.00	211.96%

It's obviously shown from table "9" that the experimental group promoted the controlling one in the ratios of betterment the post- measurement in the level

of technical and digital performance of discus throwing.

This outcome compromises with what (Muhammad Hassan

Allaway, 2002) referred to the player performs the moving or planning skill not by his body only, but also his mind.(24:198)

The fourth research's hypothesis was achieved.

Conclusions:

1- The proposal mental strategies supported by practical performance (task specific strategy – positive self-talk) positively affect on the psychological skills (ability of relaxation – mental imagery – concentration).

2- The proposal mental strategies supported by practical performance (task specific strategy – positive self-talk) positively affect on learning perfecting discus throwing skill.

3- Style of learning by order leads to learn and perfect discus throwing skill, but not affected on the psychological skill.

4- The experimental group promoted the controlling group in the ratios of betterment the post- measurement in the psychological skills, in addition to the technical and

digital performance level of discus throwing skill.

Recommendations:

1- Using the proposal mental strategies supported by practical performance (task specific strategy – positive self-talk) for learning and perfecting the discus throwing skill for the girls of faculty of physical education, Sadat University.

2- Trying another mental strategies supported by practical performance to identify the effect of learning and perfecting other contests of field and track.

3- Paying concentration to teach the field and track contests and how to benefit from using task specific strategy in the previous era especially in practical exams.

4- Using the psychological tests to select the students to share the department of field and track contests in the faculty of physical education, Sadat University.

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