

## THE EFFECT OF BRAINSTORMING ON PSYCHOLOGICAL SKILLS OF FACULTY OF SPORT EDUCATION'S FEMALE STUDENTS

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### **Abstract**

The study aimed to set brainstorming sessions and find out the extent of their impact on the psychological skills of a sample of students in the Faculty of Physical Education (18) student were selected in a deliberate manner. The experimental method has been used as a way to solve the problem.

The researcher has used the means and the tools and procedures among which were : sessions of brainstorming in the form of ten-week duration of the program for a period of two hours a week to understand where the student know how to solve problems in conditions such as imposing upon the state of anxiety or lack of confidence or cases of failure to focus attention down the lack of performance. After the doing of the pre and post tests, the researcher has reached several conclusions, the most important of which were the following :

- The brainstorming sessions have a significant impact on all of the skill of visualization and face anxiety and relaxation and self-confidence and realistic achievement and the focus of attention.
- The most important recommendations were:

Conducting a study similar to facilitator or disabling worry and their relationship to brainstorm

**Keywords:** brainstorming, psychological, skills, Sport Education, Female.

### 1. INTRODUCTION:

Researchers all over the world are concerned with students as they are the future of scientific and practical application of educational curricula prepared by them. This is because the period of a student's university age is sufficient to establish self-confidence in sport education and training in schools. Transferring theoretical, practical and applied information contributes greatly to learning and educating students in the right direction. However, this application is still related to the physical aspect only without consideration of student's personality from a psychological point of view. Most scientists asserted that psychological skills should be consistent with developing physical elements and abilities in the form of training programs or sessions. This is the case in training of the basic skills of sport activities. Mental development, relaxation, facing anxiety, self-confidence and attention focus are necessary to make a student persistent in solving and facing any problem on one hand. On the other hand, solving psychological problems and facing fatigue require brainstorming. Brainstorming is this method which contributes to problem solving through cooperation of a group in the form of a team. Each one in the team contributes by giving an opinion. After that, opinions are gathered to reach the best solutions. Therefore, in order to raise the level of the group of the students through brainstorming, the significance of this study emerged. The significance of the study lies in the mental development of students in solving psychological problems by using brainstorming with a number of sessions and the time of a lesson's unit based on the effort to obtain information by students or prepared by them as a task in solving these problems.

#### **Problem of the Study**

The problem of the study lies in the use and innovation of scientific and practical methods to treat the idea of dependence on physical solutions in sports as an alternative to psychological aspect. Most school teachers do not rely on the psychological aspect as a way to solve problems related to physical and psychological aspects. Therefore, brainstorming was used as one of the methods which contribute to develop psychological aspects through mental perception, relaxation, facing anxiety, self-confidence, attention focus and achievement motivation for physical and technical skills of students of Faculty of Sport Education.

#### **Objectives of the Study**

The study aims to

- Set sessions of brainstorming for students of Faculty of Sport Education.

- Determining the effect of brainstorming sessions on psychological skills: (mental perception, relaxation, facing anxiety, self-confidence, attention focus and achievement motivation) for the sample of the study.
- Determining significant differences of the variable of brainstorming and psychological skills in pre-tests not in post-tests for the sample of the study.

### **Hypotheses of the Study**

- There are statistically significant differences of brainstorming in pre-tests not in post-tests for the sample of the study.
- There are statistically significant differences of psychological skills in pre-tests not in post-tests for the sample of the study.

## **2. METHODOLOGY**

The researcher used the empirical method for a single group (pre and post tests) as the only clear and efficient means to solve the problem of the study.

### **Sample of the Study**

The researcher selected a purposive sample from the Faculty of Education, fourth stage (18 students). Two of the students were subject to exploratory trial and the other 16 were subject to the main trial during the course with age average of (21.6 years) due to arithmetic mean.

### **Tests of the Study**

#### **Brainstorming Test**

After preparing brainstorming form (see annex 1), due to steps of preparing the form to be able to collect paragraphs, formulation and using partitioning method of paragraphs depending on their validity and reliability, eliminating insignificant paragraphs, showing all paragraphs under the curve are in normal distribution and all of them are homogeneous, the researcher distributed the brainstorming measuring form on the female students. This was by making the student sit on a chair at break time filling the form by pen, the assistant working team declares the sign of beginning answering and then students are allowed to answer paragraphs of the measurement without leaving any one. The answer ranged between (4 marks) to a very great extent, (3) to a great extent (2) moderately agree (1) to a small extent. After that, answers are collected and statistically treated as shown in part four.

#### **Psychological Skills Test**

This test was designed by Stephen Bill, John Allenson and Christopher Chambrack (1996) Arabized and prepared by (Mohamed Hassan Allawy). It was applied on a number of sport activities. Here, this test was used after being used by researcher Faten Abdelsherif Dahesh El Askary on the third stage, Faculty of Sport Education for Girls after performing all requirements of preparing and application.

#### **Exploratory Trial**

The exploratory trial was performed on three students on Sunday 02/11/2014. The goal of this trial was to avoid all errors that may occur in the main trial such as the expected time for work, response of the assistant working team and students at application in addition to the method used in test application.

#### **Pre-Test**

After reviewing obstacles resulting from the exploratory trial, the researcher began tests regarding distribution of questionnaires as follows:

- 1- On 03/11/2014, brainstorming questionnaire was distributed after explaining all related requirements.
- 2- On 04/11/2014, psychological skills questionnaire was distributed after explaining all related requirements.

After responding all requirements of answering the questions in questionnaires, they were collected to be statistically treated in part four from the requirements of the post-test.

## **3. BRAINSTORMING PROGRAM**

The brainstorming program was applied in the period from 05/11/2014 to 19/01/2015 as it was applied based on the following main principles: (Hassan Ibrahim Abdelaal 2005, 87):

- 1- Delaying evaluation (this means that evaluation of any ideas generated in the first stages of the session is not allowed).
- 2- Freedom of thinking (liberating from any blocks against creative thinking, increasing creative abilities of imagination and ideas generation in an atmosphere that is open for criticism and evaluation).
- 3- Quantity before quality (concentration in the brainstorming session on generating the biggest possible amount of ideas whatever their qualities are).

- 4- Building on others' ideas (it is allowed to develop ideas of the others and generate new ideas proposed as a legitimate right for any participant to change them and generate other ideas with us).

Accordingly, based on above principles, steps of brainstorming were set (Turner, Thomos N.: 1994.87). Discussion of the session:

- 1- Reframing the problem.
- 2- Preparing an atmosphere of creativity.
- 3- Generating ideas.

In addition, the training program of brainstorming sessions (10 weeks) was applied and each session includes problem solving method theoretically and practically.

#### Post-Tests

Post-tests were performed due to what was included in pre-tests and with the same steps. The first brainstorming test was conducted on 21/01/2015 and the psychological skills test was conducted on 22/01/2015. After finishing tests, all data were collected to be statistically treated in schedules as it is shown in part four.

#### Analysis & Discussion of Results:

##### Analysis & Discussion of Brainstorming

**Table (1): statistical Features of brainstorming:**

Statistical Values Study variables	Pre-test		Post-test		F	F Tabulated value	T Value *	Significance
	Mean 1	S.D 2	Mean 2	S.D 2				
Brainstorming	29.83	0.579	46.45	1.34	16.62	3.69	4.50	Significant

**(\*) tabulated T value (2.18) at freedom degree (9) and significance level (0.05)**

Table (1) shows that the arithmetic mean in the pre-test was (29.83), the standard deviation (0.579), but in post-test they were (46.45) and (1.34) consecutively. The difference of means (F) was (16.62) and its standard deviation was (3.69). At the statistical treatment of the (T) counted value, it was found that its value after treatments was (4.50), while the tabulated one was (2.18) at freedom degree (9) and significance level (0.05). The researcher found that these differences were due to what is included in brainstorming sessions as they were theoretical and practical sessions subject to practical scientific thinking based on cooperation and approaching levels of students to solve problems in their minds in addition to reinforcement of self-confidence (as a learner finds himself in an atmosphere in which his ideas are welcomed with productive thinking) (Gouda Saada 2003, 8). Working using brainstorming makes the brain think based on trial because traditional education does not encourage much on discussion, dialogue and presenting ideas in free collective discussions so the strategy of brainstorming was designed (Hussein Mohamed Hassanein 2002, 76).

#### Analysis & Discussion of Sample Results:

**Table (2) statistical features of psychological skills' variables for the sample of the study**

Statistical Values Study variables	Pre-test		Post-test		F	F Tabulated value	T Value *	Significance
	Mean 1	S.D 2	Mean 2	S.D 2				
Mental perception	12.38	0.28	18.80	0.13	6.24	1.6	3.90	Significant
Relaxation	11.23	0.20	17.82	0.16	6.59	1.70	3.87	Significant
Attention focus	13.80	0.11	18.99	0.45	6.79	1.73	3.92	Significant
Facing anxiety	12.18	0.14	19.87	0.20	7.69	1.83	4.2	Significant
Self-confidence	12.83	0.12	20.43	0.41	7.6	1.92	3.95	Significant
Achievement reality	12.51	0.26	19.14	0.40	7.13	1.78	4	Significant

**(\*) tabulated T value (2.18) at freedom degree (9) and significance level (0.05)**

Table (2) shows that arithmetic mean for mental perception as one of the main psychological skills is (12.38) and standard deviation is (0.28), but in post-test they were (8.80) and (0.13) consecutively. The difference of means (F) was (6.24) and its standard deviation was (1.6). At the statistical treatment of the (T) counted value, it was found that its value was (3.90), while the tabulated one was (2.18) at freedom degree (9) and significance level (0.05). Since the T counted value is bigger than tabulated one, this means that the difference is significant. The researcher found that these differences were due to the level of students' acceptance and interaction with them although they know that mental perception is not a magical power, but it is like vitamin that helps physical, motor training and planning. It gives the student extraordinary powers and makes them not exceed their physiological abilities, but it is like a helping factor to generate maximum inner energy of the student (Mohamed Hassan Allawy 202, 248) in addition to retrieval of stored information in the brain about the needed performance through education, training and model presentation (Faten Abdelsherif Dahesh 2009, 81).

When it comes to relaxation, the arithmetic mean for the pre-test is (11.33) and standard deviation is (0.20), but in post-test they were (17.82) and (0.16) consecutively. The difference of means (F) was (0.59) and its standard deviation was (1.70). At the statistical treatment of the (T) counted value, it was found that its value was (3.87), while the tabulated one was (2.18) at freedom degree (9) and significance level (0.05). Since the T counted value is bigger than tabulated one, this means that the difference is significant. The researcher found that these differences were due to sessions of brainstorming that contributed to relaxation which, in turn helped relieve stress and restore the body's normal physical or functional conditions to the steady state. This was asserted by (Hanzmill) from (Lamiaa Al Diwan) as relaxation plays an important role in preparing the body to resist the threats that come from internal resources which cause the persistent feeling of anxiety and stress from something that will happen in the future (Lamiaa Hassan Mohamed Al Diwan, Education Forums at Grabil)

As for attention focus, the arithmetic mean for the pre-test is (12.80) and standard deviation is (0.11), but in post-test they were (18.99) and (0.45) consecutively. The difference of means (F) was (6.79) and its standard deviation was (1.73). At the statistical treatment of the (T) counted value, it was found that its value was (3.92), while the tabulated one was (2.18). Since the T counted value is bigger than tabulated one. This means that the difference is significant. The researcher found that these differences were due to concentration in problem solving in more than one situation contributed to these results in addition to the period in which the researcher worked through discussion and dialogues with students also contributed to mental communication (persistent attention on selected stimulus for a period of time) which achieved significant results shown in table (2).

As for facing anxiety, the arithmetic mean for the pre-test is (12.18) and standard deviation is (0.14), but in post-test they were (18.87) and (0.20) consecutively. The difference of means (F) was (7.69) and its standard deviation was (1.83). At the statistical treatment of the (T) counted value, it was found that its value was (4.2), while the tabulated one was (2.18) at freedom degree (9) and significance level (0.05). Since the T counted value is bigger than tabulated one. This means that the difference is significant. The researcher found that these differences were due to practical brainstorming sessions which contributed to increase relaxation and attention focus. This was reflected on anxiety by increasing the sample's ability to face anxiety resulting from performance or technical or emotional work of students. Accordingly, this mitigated fear, especially when we know that anxiety is (reaction of fear graded from connection and disorder till reaching extreme fear (Mohamed Hassan Allawy 2002, 286). In addition, treatment of performance barriers and thinking in information solving also contributed to face anxiety by the sample of the study.

As for self-confidence, the arithmetic mean for the pre-test is (20.43) and standard deviation is (0.41), but in post-test they were (7.6) and (1.92) consecutively. The difference of means (F) was (7.6) and its standard deviation was (1.92). At the statistical treatment of the (T) counted value, it was found that its value was (3.95), while the tabulated one was (2.18) at freedom degree (9) and significance level (0.05). Since the T counted value is bigger than tabulated one. This means that the difference is significant. The researcher found that these differences were due to information in practical brainstorming sessions which contributed to solve problems related to performance; lesson management and reduced doubt in solving any problem related to the technical side of the lesson which made the student avoid concentration on weakness points and strength sides (Osama Rateb 2004, 316).

As for achievement motivation, the arithmetic mean for the pre-test is (12.59) and standard deviation is (0.12), but in post-test they were (19.64) and (0.40) consecutively. The difference of means (F) was (7.13) and its standard deviation was (1.78). At the statistical treatment of the (T) counted value, it was found that its value was (4), while the tabulated one was (2.18) at freedom degree (9) and significance level (0.05). Since the T counted value is bigger than tabulated one. This means that the difference is significant. The researcher found that these differences were due to the very good level of significant values in psychological skills which contributed greatly to these results. This was asserted by (Mohamed El Arabi) who said that the development of psychological skills should be consistent with developing fitness elements through educational and training programs as they should be considered like basic skills in sport activities (Mohamed El Arabi Shamon 1995: 219).

#### 4. CONCLUSIONS:

- 1- Brainstorming sessions have an effect on mental and practical reality of the students.
- 2- Brainstorming sessions have a great effect on (mental perception, attention focus, facing anxiety, relaxation and achievement reality).

- 3- The time of methodology was suitable for problem solving through the use of brainstorming.
- 4- The period of (10) weeks is enough to affect psychological skills of the sample of the study.

#### 5. RECOMMENDATIONS

- 1- Conduct similar studies on the light of concepts of the study.
- 2- Conduct a study for simple and hard anxiety and its relation with brainstorming.
- 3- Conduct another study to determine the relation between self-burning and brainstorming.

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