

The effectiveness of functional Training Program on some of the variables of physical and psychological character for students of the Faculty of Physical Education for girls

* **Ass. Prof. Reham Hamed**

** **Dr. Mayada Mohamed Ali Al Alakhdar**

This research aims to identify the impact of functional Training program on some of the variables of physical, psychological, and mental health. The study sample included 30 female students from the Third Division, Faculty of Physical Education for girls Helwan university For the year (2011-2012), The researchers used experimental method for the two groups, one experimental and the other is control each of them (15 student). And the most important results showed that there were statistically significant differences between the measurement pre and post tests for the experimental group. As statistically significant differences between the measurement of both the experimental group and the control group in the variables

of physical, psychological and mental.

Research Introduction:

Scientific development has added many of modern training methods through which an athlete is efficiently set up to qualify himself to rise to the level of performance.

Where athlete training scientists have worked hard in an attempt to reach the best ways to improve the quality of athletic performance

The advancement of technical and technological knowledge is the feature of the modern era, which includes all life situations as work which required physical or mental effort in the past, is now possible to perform by using the tools and techniques with less physical and mental effort, which led to a low level of fitness of the individual.

* (Assistant professor, Rythmic Exercise and Artistic gymnastic dept, Faculty of physical education Helwan University)

** (*Doctor* , Rythmic Exercise and Artistic gymnastic dept, Faculty of physical education Helwan University)

The use of modern trends in fitness is of great importance in raising and improving the level of physical preparation.

The sports field has also shown an interest in the psychological aspects and a special interest in the subject of motivation as the motivation for raising the Athletic spirit represents the most important processes of education and training where next to advances in aspects of skill comes the role of motivation to make the effort and energy required to teach those skills first and second training.

Secondly, the research problems:

In the terms of a good sports preparation as it is considered the physical educational process and based on the use of functional exercise in order to develop different qualities needed to achieve the highest possible level in a certain type of activities as it helps to develop and improve some psychological variables, and after the researchers have reviewed the programs of exercises, which mainly concentrate on the development of physical fitness and psychological aspects, so the study has crystallized the

idea of being in an attempt to implement the program of functional exercises for the third year students of the Faculty of Physical Education outside the curriculum and learn about the impact of this program on some physical and psychological and mental variables.

Through the work of researchers in the field of training in the Faculty of Physical Education, it became clear to them that the more frequent injuries of the students is in the lumbar region and in some certain joints such as the shoulder joint and the hip joint and the inability of the students to focus and control muscle in performance, so they took to research in the training programs of modern work to avoid such problems, so they found that functional training programs work to enhance the performance and avoid injury and rehabilitation of the body after infection .

And the importance of this study lies in the scientific trial as they try to develop the training programs and physical preparation as an input to improve the level of fitness and mental skills (concentration - awareness) and psychological

(self motivation to achieve) among students in the Faculty of Physical Education for Girls – Aljazeera.

Third: the importance of research:

1 - The scientific importance of the research:

A - This research is an attempt to use one of the methods of physical training represented in functional training and applying it in the sports field, and thus the development of effective athletic performance.

B – The current research presents a new gateway to treat problems and difficulties faced by the students through training and practice, to achieve better management and investment of physical and mental energies.

2 - Applied important to search:

A – The functional training program contributes to reach to a better level of fitness, concentration and awareness, and the development of a self motivation to achieve, which achieves the highest level of performance and the skill to avoid injuries.

B - Takes advantage of the results of this study to evaluate and develop training programs

to the students of the Faculty of Physical Education in order to achieve the best level of performance sports.

C – The search results contribute to the activation of the role of career training programs in the process of physical preparation.

Fourth: The objectives of the research:

This research aims to design a functional training program to learn about it's impact on each of:

1 - Some elements of physical fitness related rhythmic exercise (Flexibility - Fitness - Compatibility - speed - reaction time - ability - balance - power).

2 - Mental skills (concentration – awareness).

3 - Psychological skill (self motivation to achieve)

Fifth: research hypotheses:

1 - There are significant statistical differences between the experimental group and the control group in the variables of physical fitness (flexibility - Fitness - Compatibility - speed - reaction time - ability - balance - power) with the third year students in the favor of the experimental group .

2 - There are significant statistical differences between

the experimental group and the control group in the mental skills (concentration – awareness) to the students of the third year in the favor of the experimental group.

3 - There are significant statistical differences between the experimental group and the control group in a psychological variable (self motivation to achieve) to the students the third year in the favor of the experimental group.

Sixth: Research terms:

Functional strength: is performing work against a resistance which improve daily life activities and movements associated with sports.

Exercises:

Is the basic rule for all sports activities, It contributes to the physical and psychological configuration, and prepare individuals to accept more effort, it is a body kinesthetic activity which forms the body and grows it's kinetic abilities according to the scientific and educational principles and rules

Concentration:

The ability to focus the spotlight on the appropriate icons in the environment, and maintain the focus during athletic competition

"The ability to install attention on the arousing choice for a period of time"

- As measured by the Grid attention test.

Motivational Achievement:

Means the motivation to accomplish the ability to deliver high-motivated forces for power generation in order to achieve excellence, progress, improve previous achievements, defeating rivals, and care to achieve the best performance, and the fastest, and have a good ability to find quick solutions to difficult problems.

measured by the list of sports trends.

The plans and procedures of the research

First: The research plans:

1. Research curriculum

The two researchers used the experimental curriculum by using an experimental design for two groups, one is experimental the other is controlled, by using "pre" and "post" measurements.

2. Research community

Third year female students from the Faculty of Physical Education for girls in Aljazeera - Helwan University for the educational year (2011 – 2012)

3. Research samples

Random – intentional samples of third year female students made up of (30) students of the research community with a percentage of 18% where the number of third year students is 160 students. They're divided in two equal groups, one is experimental the other is controlled, each group (15) students.

Data collecting tools:

Some assistance was used by a variety of means to collect the data for this research:

Some special checks for the moderation of data between members of the research sample such as descriptive variables and other specific to collection of essential research data, such as the psychological variables and that after learning of the previous researches and studies, the researcher has used the following tools to collect data for research:

Tools used to measure descriptive variables included:

- **Height:** by using a _____ (closest cm)
- **Weight:** by using a medical scale (closest Kg)
- **Age:** by birth year (closest year)

Tests for physical variables:

- Flexibility test (front splite – side splite – bridge)
- Agility test (semo agility test)
- Coordination test (soda cans test)
- Speed test (50 yard dash)
- Reaction time test (yard stick test)
- Ability test (vertical jump test – Two Hand medicine ball put (6 lbs))
- Balance test (strok stand)
- Strength test (push up – forward lunge)

Standards and tests of mental skills:

Grid concentration test

Tests for aspects of the personality:

Measure of self motivation to achieve

Suggested program for functional training:

The two researchers designed a training program using functional training in order to develop some of the variables whether physical, mental or psychological, through:

- Analysis of Researches and Studies in the field associated with the research.
- Analysis of references and scientific books specialized in this field.
- Expert opinion.

Program goals:

The suggested program hopes to:

- Develop some physical characteristics (flexibility - Ability - Fitness – coordination
- Balance -speed - Speed of reaction- strength)
- Develop mental skills (concentration - attention).
- Develop the psychological variable (self motivation to achieve).

The foundations of programming:

- Identifying the target of the program
- Choosing the appropriate group of exercise according to the modern scientific foundations.
- Suitability between exercises in each exercise unit.
- To take step by step the various muscle groups, according to the dimensions of the program.
- Taking into considerations signs of fatigue and assigning resting periods in between.
- Taking into account individual differences among students.

Applying the program:

The two groups were distributed, the experimental group and the control group, so that their training days (Sunday - Tuesday - Thursday) of each

week the first group (experimental), which have been trained from 2-3 pm, and the second group (control group) from 3-4 pm, The two groups have been recycled through the timings so that each group is subject to the same training conditions.

Time frame for the program:

The time frame for the program that was selected was (12) weeks by three (3) training units per week and an average of 60 minutes per training module in the week bringing the total training modules (36) units, with a total number of hours (36 hours) for each group.

Program of functional training:

The goal of the program:

- The development of some of the physical variables like (flexibility – Fitness – Compatibility – Speed - reaction time – ability – balance – strength).
- Mental skill development (concentration - attention).
- The development of the psychological variable (self motivation to achieve)

Components of the program:

The proposed program included a set of axes and dimensions, which are:

First axis: warm up exercises

First dimension: warm up of large muscles (chest, back, thighs, trunk)

Second dimension: warm up of smaller muscles (arms, shoulders, Calf)

Second Axis: primary Exercises

And it's the complex functional exercises which include the work of more than 1 muscle.

Third axis: cool down exercises

And that's the exercises that cool down the body, and work quickening the rate at which it reaches to its normal state.

Program content:

first axis: warm up

There are a few reasons for warming up:

- Preparing the body and muscles for work and that's by contraction and relaxation of the muscles.
- Help the heart go to the next phase of the work for the needed respiration.
- Help blood reach the muscles working, helps the flow of blood circulation.

- And because of the different movements in the aerobic exercise, the heart, lungs and muscles require a great deal of oxygen and to achieve this, you must do a warm-up for all parts of the body from the head and then slowly move down to toe It is necessary to take it step by step so that to help the flow of blood in the muscles and joints during a warm-up to reduce as much as possible muscular pain and injuries.

The purpose of the warm-up:

- Prepare the body for the activities of high-density.
- Increase the heart rate gradually.
- Warm-up the muscles gradually.
- Gradually increase the ventilation of the lungs.
- Increased vigilance (activity).
- Increase flexibility.
- Stimulate the secretion of synovial fluid between the joints.
- Reduce the likelihood of injury.

Second Axis: primary exercises

Helps increase strength, balance, compatibility, activity,

concentration, attentiveness, and these exercises give the body a strong form which makes the body less likely to injury.

The purpose of the primary exercises:

- Development of muscle strength.
- The development of muscle compatibility.
- Develop the element of balance.
- The development of the ability to control muscle.
- The development of the ability to withstand the force.

Third Axis: cool down exercises

And is considered a vital part of the aerobic exercises, it allows the body to heal of the intensity and duration of exercise, so you must start slow and more relaxed movements. This is done through slowing down in performance exercises then stretching the muscles so as to equitably distribute the blood and the body returns to a state of physical equilibrium and heart rate back to normal gradually.

The purpose of calming exercises:

- Gradually reduce the heart rate.
- Muscle relaxes gradually.
- Minimize muscle stiffness and it's contractions.
- The removal of lactic acid formation and acid poplars.
- Gradually reduce the ventilation of the lungs.
- Reduce the index of injury.
- Increase flexibility.
- Restore the body to its natural state prior to the exercise.

Secondly: Search procedures:

Scoping study:

The researcher conducted a scoping study for a number of (15) students from the research community and in all the research variables, and that in the period from (1/2/2012) to (5/2/2012), and the study resulted in the following:

- The certainty of the validity of the research tools.
- Processing the space designed for the experiment.

“Pre” Measurements:

“Pre” Measurements were made for the experimental and control groups in all the variables

specified under the research, in the period from (5/2/2012) to (8/2/2012), and the fitness variables were measured (flexibility - ability - Fitness - Coordination - Speed - reaction speed - balance - strength), mental skills variables (concentration - awareness), the psychological variable (Self motivation to achieve).

Applying the suggested program:

The researchers applied the research experience on the primary research sample (experimental group) of (15) a student of third year students of the Faculty of Physical Education for Girls - Aljazeera in the period from (13/2/2011) to (15/5/2011) in the Faculty of Physical Education - Aljazeera.

“Post” measurements:

“Post” measurements were performed for the research group in the variables selected according to the order as follows: variables of physical fitness (flexibility - ability - Fitness - Coordination

- speed - the speed of reaction - balance - power), variables of mental skills (concentration - awareness), psychological variables (Self motivation to achieve).

In the period from (5/16/2011) to (19/05/2011), taking into account the same circumstances and conditions that have been followed in the “pre” measurements.

Statistical treatments:

Statistical treatments were conducted as follows:

The researchers used the SPSS statistical package for data processing and extract the results and those treatments are as follows:

- Arithmetic mean
- Standard deviation
- Median
- Coefficient of torsion
- T- Test

Results

1. Showing results associated to the given variables regarding physical fitness (flexibility - Agility - coordination - speed - Reaction speed - muscle ability - balance - strength)

Table (1)

Significance of differences between the two measurements, pre and post, and rate of improvement of the experimental group in Variables regarding physical fitness (N=15)

variables	Pre		Post		T	Significance	%
	م	ع	م	ع			
Frontal split	٩,٥٣	١,٠٦	٥,٠٠	٠,٥٣٤	*١٦,٥٦	significant	٤٧,٥
Side split	١١,٥٣	١,٧٦	٥,٠٠	١,٠٦	*٢٠,٣٠	significant	٥٦,٦
Bridge	٤٠,٢٠	١,٠٨	٣٣,٨٠	١,٧٨	*١٦,٠٠	significant	١٦,٠٠
Agility	٤٣,٠٦	٣,٢١	٣٢,٦٦	٣,١٩	*٣١,٠٢	significant	٢٤,٠٠
Coordination	٦٣,٣٣	٥,٢٣	٥٤,٤٦	٥,٥٥	*١٧,٨٦	significant	١٤,٠٠
speed	١٤,٨٠	٠,٩٤١	١١,٤٠	١,٠٠	*١٢,٤٧	significant	٢٣,٠٠
Reaction speed	٨,٧٣	٠,٨٨٣	٤,٢٦	٠,٧٠٣	*٢٣,٢٧	significant	٥١,٥
Upper part muscle ability	٤,٢٦	٠,٧٩٨	٥,٥٦	٠,٨٤٢	*١٢,١٦	significant	٣٠,٥
Lower part muscle ability	١٢,٦٦	٢,٥٨	١٧,٤٦	٢,٤٧	*١٣,٥٣	significant	٣٨,٠٠
Balance	٢٥,٣٣	٤,٨٠	٤٧,٦٦	١٠,٤٩	*١١,٤٩	significant	٨٨,١
Lower part strength	٨,٤٠	٠,٧٦٣	١٥,٠٦	٠,٧٠٣	*٤١,٨٣	significant	٧٩,٢
Upper part strength	٤,٠٦	١,٢٢	٩,٣٣	٠,٧٢٣	*٢٨,٩٨	significant	١٢٩,٨

Value of "T" = 2.013

We seen in table (6) that:

There is a significant statistical difference between the two measurements, the "pre" and "post", for the experimental

group in favor of the "post" measurement in the variables regarding physical fitness elements .

Table (2)

The significance of the difference between the two measurements, the “pre” and “post”, and rate of improvement for the control group in the variables regarding physical fitness N=15

variables	Pre		Post		T	Significance	%
	μ	σ	μ	σ			
Frontal split	9,70	1,00	8,33	0,899	*10,71	significant	47,0
Side split	11,33	1,70	9,13	1,00	*9,86	significant	06,7
Bridge	40,07	1,22	38,07	1,33	*9,16	significant	16,00
Agility	42,73	3,26	40,20	3,0	*7,23	significant	24,00
Coordination	73,0	0,27	70,93	0,20	*8,32	significant	14,00
speed	14,93	0,798	13,80	0,774	*8,00	significant	23,00
Reaction speed	8,77	0,816	7,0	0,704	*13,22	significant	01,0
Upper part muscle ability	4,33	0,816	4,07	0,702	*11,0	significant	30,0
Lower part muscle ability	12,33	2,08	13,77	2,28	*10,08	significant	38,00
Balance	20,77	4,90	29,93	3,30	*12,91	significant	88,1
Lower part strength	8,33	0,723	9,73	0,798	*10,79	significant	79,2
Upper part strength	4,0	1,13	0,13	1,07	*12,47	significant	129,8

Value of “T” = 2.013

We seen in table (7) that:

There is a significant statistical difference between the two measurements, the “pre”

and “post”, for the control group in favor of the “post” measurement in the variables regarding physical fitness elements.

Table (8)

The significance of the difference between the two “post” measurements, for both the experimental and control group in the variables regarding physical fitness. (N=30)

variables	experimental		controlled		T	Significance
	μ	σ	μ	σ		
Frontal split	0,00	0,034	8,33	0,899	*12,33	significant
Side split	0,00	1,07	9,13	1,00	*8,80	significant
Bridge	33,80	1,78	38,07	1,33	*7,42	significant
Agility	32,77	3,19	40,20	3,00	*6,74	significant
Coordination	04,47	0,00	70,93	0,20	*3,29	significant
speed	11,40	1,00	13,80	0,774	*7,09	significant
Reaction speed	4,27	0,703	7,00	0,704	*11,01	significant

Follow Table (8)
The significance of the difference between the two “post” measurements, for both the experimental and control group in the variables regarding physical fitness. (N=30)

variables	experimental		controlled		T	Significance
	μ	ε	μ	ε		
Upper part muscle ability	٥,٥٦	٠,٨٤٢	٤,٠٦	٠,٧٥٢	*٣,٧١	significant
Lower part muscle ability	١٧,٤٦	٢,٤٧	١٣,٦٦	٢,٢٨	*٤,٣٦	significant
Balance	٤٧,٦٦	١٠,٤٩	٢٩,٩٣	٣,٣٥	*٥,٨٢	significant
Lower part strength	١٥,٠٦	٠,٧٠٣	٩,٧٣	٠,٧٩٨	*١٩,٤٠	significant
Upper part strength	٩,٣٣	٠,٧٢٣	٥,١٣	١,٠٦	*١٢,٦٧	significant

Value of “T” = 1.96

We seen in table (8) that:

There is a significant statistical difference between both the experimental and control groups in the “post” measurement in favor of the experimental group in all the variables regarding physical fitness that are specific to rhythmic exercises.

2-Displaying results related to mental skills (concentrating awareness)

Table (13) clarifies the significance of the differences between the two measurements, the “pre” and “post”, and rates of improvement for the experimental group in the variable of “mental skills”

Table (9)

The significance of the difference between the two measurements, the “pre” and “post”, and rate of improvement for the experimental group, in the variable of “mental skills” N=15

Variables	Pre		post		T	Significance	%
	μ	ε	μ	ε			
concentrating awareness	٨,٢٦	٢,٤٣	١٥,٦٦	١,٠١	*٢٠,٥٧	significant	٨٩,٥

Value of “T” = 1.96

We seen in table (9) that:

There is a significant statistical difference between the two

measurements, the “pre” and “post”, for the experimental group in favor of the “post”

measurement in all the variables regarding mental skills.

Table (10) clarifies the significance of the differences

between the two measurements, the “pre” and “post”, for the control group in the variable of “mental skills”.

Table (10)

The significance of the differences between the two measurements, the “pre” and “post”, for the control group in the variable of “mental skills” N=15

Variables	Pre		post		T	Significance	%
	μ	σ	μ	σ			
concentrating awareness	٧,٠٦	١,٤٨	٨,٢٦	١,٦٦	*١١,٢٢	significant	١٧,٠٠

Value of “T” = 2.013

We seen in table (10) that:

There is a significant statistical difference between the two measurements, the “pre” and “post”, for the control group in

favor of the “post” measurement in all the variables regarding mental skills.

Table (11)

The significance of the differences between the two “post” measurements, for both the experimental and control groups in the variable of “mental skills” N=30

Variables	experimental		controlled		T	Significance
	μ	σ	μ	σ		
concentrating awareness	١٥,٦٦	١,٠١	٨,٢٦	١,٦٦	*١٩,٨٨	significant

Value of “T” = 1.96

We seen in table (11) that:

There is a significant statistical difference between the two groups in the post measurement in favor of the experimental group in all the variables regarding mental skills.

3- Displaying results that are related to the psychological factor (Self motivation to achieve)

Table (12) clarifies the significance of the differences between the two measurements, the

“pre” and “post”, and rates of improvement for the experimental group in the

variable of “Self motivation to achieve”.

Table (12)

The significance of the differences between the two measurements, the “pre” and “post”, and rates of improvement for the experimental group in the variable of “Self motivation to achieve” N=15

Variables	Pre		post		T	Significance	%
	μ	ξ	μ	ξ			
Motivation for Achievement	٤٦,٨٦	٤,٠٨	٨٣,٣٣	٥,٥٦	*٢١,٣٣	significant	٨,٧٧

Value of “T” = 2.013

We seen in table (12) that:

There is a significant statistical difference between the two measurements the “pre” and “post”, for the experimental group in the psychological variable.

Table (13) clarifies the significance of the differences between the two measurements, the “pre” and “post”, and rates of improvement for the control group in the psychological variable.

Table (13)

The significance of the differences between the two measurements, the “pre” and “post”, and rates of improvement for the control group in the psychological variable N=15

Variables	Pre		post		T	Significance	%
	μ	ξ	μ	ξ			
Motivation for Achievement	٤٦,٢٠	٤,٣٤	٥١,٣٣	٤,٤١	*١٨,٧٥	significant	١١,١

Value of “T” = 2.013

We seen in table (13) that:

There is a significant statistical difference between the two measurements the “pre” and “post”, for the control group in

favor of the “post” measurement, in the psychological variable.

Table (14) clarifies the significance of the differences between the two “post”

measurements, for both the experimental and control group in the psychological variable.

Table (14)
The significance of the differences between the two “post” measurements, for both the experimental and control group in the psychological variable N=30

Variables	experimental		controlled		T	Significance
	μ	ξ	μ	ξ		
Motivation for Achievement	٨٣,٣٣	٥,٥٦	٥١,٣٣	٤,٤١	*١٧,٤٤	significant

Value of “T” = 1.96

We seen in table (14) that:

There is a significant statistical difference between both the experimental and control groups in the “post” measurement, in favor of experimental group, in the psychological variable.

Secondly: Discussion

1. Discuss the results associated with the given variables regarding physical fitness (flexibility – Agility – coordination – speed – Reaction speed – muscle ability – balance – strength)

Table (6) clarifies the results related to the variables of physical fitness for the experimental group that are represented in (flexibility – Agility – coordination – speed – Reaction speed – muscle ability – balance – strength)

These results indicate that there is a significant statistical

difference between the “pre” and “post” measurements in the variables relating to physical fitness.

Where table (7) shows the results related to the variables of physical fitness for the control group that are represented in (flexibility – Agility – coordination – speed – Reaction speed – muscle ability – balance – strength)

These results indicate that there is a significant statistical difference between the “pre” and “post” measurements in the variables relating to physical fitness.

Tables (6), (7) and (8) also show that there are a significant statistical difference between both the experimental and control groups in the variables of physical fitness that are represented in (front split – side split – agility –

coordination – speed – reaction speed –muscle ability of the upper part –muscle ability of lower part – balance – strength of the lower part – strength of upper part).and the rate of improvement for the experimental group has reached (47.5%, 55.6%, 16.0%, 24.0%, 14.0%, 23.00%, 51.5%, 30.5%, 38.0%, 88.1%, 79.2%, 129.8%)

in the variables of physical fitness that are represented in (front split – side split – agility – coordination – speed – reaction speed –muscle ability of the upper part –muscle ability of lower part – balance – strength of the lower part – strength of upper part)., and the rate of improvement for the control group has reached (13.2%, 19.4%, 5.0%, 5.9%, 3.3% 19.1%, 7.5%, 6.2%, 10.7%, 16.6%, 16.8%, 28.2%) in the variables of physical fitness in (front split – side split – agility – coordination – speed – reaction speed –muscle ability of the upper part – muscle ability of lower part – balance – strength of the lower part – strength of upper part).

As table (8) also indicates that there is a significant statistical difference between the variables relating to physical

fitness between both the experimental and control groups in favor of the “post” measurement to the experimental group.

The effect of using a program for functional training, where special exercises to improve physical fitness have been put, has caused an improvement in physical features.

And these results prove the first theory which says: “There are significant statistical differences between both the experimental and control groups in the variables regarding physical fitness (flexibility– Agility – coordination– speed – Reaction speed– muscle ability – balance – strength)

for third grade female students in the experimental group.

2- Discussing results that are related to “mental skills” variable

Table (9) shows that the results related to the mental skills variable for the experimental group represented in (concentration – awareness).

And these results indicate that there is a significant statistical difference between the “pre” and “post” measurements in the variables relating to mental skills.

Where table (10) shows the results related to mental skills variable for the control group represented in (concentration – awareness).

And these results indicate that there is a significant statistical difference between the “pre” and “post” measurements in the variables relating to mental skills.

Tables (9), (10) and (11) also show that there are a significant statistical difference between both the experimental and control groups in the variables of mental skills that are represented in (concentration – awareness), and the rate of improvement for the experimental group has reached (89.5%) in the variables of mental skills, and the rate of improvement for the control group has reached (17.0%) in the variables of mental skills represented in (concentration – awareness).

As table (11) also indicates that there is a significant statistical difference between the variables relating to mental fitness between both the experimental and control groups in favor of the “post” measurement to the experimental group.

The effect of using a program for functional training, where special exercises to improve mental skills have been put, has caused an improvement in mental skills (concentration – awareness).

And these results prove the second theory which says: “There are significant statistical differences between both the experimental and control groups in the variables regarding mental skills (concentration – awareness) for third grade female students in the experimental group.

3- Discussing results that are related to the psychological factor (Motivation for Achievement)

Table (12) shows that the results related to the psychological factor variable for the experimental group represented in (Self motivation to achieve).

And these results indicate that there is a significant statistical difference between the “pre” and “post” measurements in the variables relating to psychological factor (Self motivation to achieve).

Where table (13) shows the results related to psychological factor variable for the control

group represented in (Self motivation to achieve).

And these results indicate that there is a significant statistical difference between the “pre” and “post” measurements in the variables relating to psychological factor (Self motivation to achieve).

Tables (12), (13) and (14) also show that there are a significant statistical difference between both the experimental and control groups in the variables of psychological factor that are represented in (Self motivation to achieve), and the rate of improvement for the experimental group has reached (77.8%) in the variables of psychological factor, and the rate of improvement for the control group has reached (11.1%) in the variables of psychological factor represented in (Self motivation to achieve).

As table (14) also indicates that there is a significant statistical difference between the variables relating to psychological factor between both the experimental and control groups in favor of the “post” measurement to the experimental group.

The researchers attributed the previous results to:

The effect of using a program for functional training, where special exercises work to improve general factors of physical fitness by increasing the ability for muscle control and increasing the ability to concentrate, which had a positive effect on self motivation to achieve.

And these results prove the third theory which says:

“There are significant statistical differences between both the experimental and control groups in the variables regarding the psychological factor (Self motivation to achieve) for third grade female students in the experimental group.

Conclusions:

1. The effectiveness of using functional training program on improving physical fitness elements fitness (flexibility – Agility – compatibility – speed – Reaction speed – muscle ability – balance – strength)
2. The effectiveness of using functional training program on improving mental skill (concentration – awareness)
3. The effectiveness of using functional training program on improving the

psychological factor
(Motivation for Achievement)

Recommendations

Within the limits of the characteristics of the study sample and in the light of the findings and conclusions the researchers recommendations include the following:

1 - The application of the functional training program on various categories of society for the novelty of the program and its positive impact on physical fitness elements.

2 - Conducting a similar study on female students that have been subjected to various injuries, where the program works on functional rehabilitation and improves self motivation to accomplish and improve the level of performance in a short period of time .

3 – Giving attention to design functional training programs for the development of physical fitness elements and

particularly strength and balance that belong to the primary groups of rhythmic exercises to support struggling students (with special needs) and work on the concentration of attention.

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