

## **Setting a Standard for Evaluating the Motor Skills Using the Ball for the Female Students of the Faculty of Physical Education - Mansoura University**

**\*Dr/ Fatima Mahmoud Abdel-Samea Gharib**

### **Introduction and Research Problem:**

Since the dawn of history, man has sought to make evaluation judgments on the phenomena, subjects and people. These judgments were primitive at the time, but this did not last long, as the evaluation developed by developing knowledge and scientific research.

In the last quarter of the twentieth century there has been a major breakthrough in all fields of scientific research as a result of tangible progress in various sciences and the primary features of the era became the analysis of phenomena and measurement of elements and appreciation of the importance of each component of any phenomenon that we want to subject to scientific research and the need is growing in the third world states and Egypt, one of them, to confirm and strengthen scientific research to be able to

close the huge abyss, which is widening between us and the developed world.

Scientific research has become one of the most important necessities for the development of modern society and to reach the highest levels in all areas of life by recognizing the gift of God to man of different ideas, abilities and energies in an attempt to achieve the greatest possible use of scientific theories and adapting them to serve the society and develop it so that we can take rated scientific steps to raise the level of performance in all sports activities. (4:9).

The evaluation process in the field of education is one of the most important processes associated with the educational process, and the implementation of study programs, which can determine the effectiveness of these programs, methods and techniques used in teaching,

---

\* Lecturer in the Department of Curricula and teaching methods in the Faculty of Physical Education-Mansoura University

and it helps to assess the efficiency of learners and the adequacy of information and concepts provided during the educational process. (13:59) (121:7).

Mohammed Mohammed Al-Hammami and Amin Anwar Al-Kholy (1990), Makarem Mohammed AboHarja and Mohammed Saad Zaghloul (1990) and Mounir Abdullah Harbi and HananAbd El-HalimRezk (2002) refer that the use of the evaluation seems inevitable if we want to know the effectiveness of the programs that are taught, and to determine the status of learners and their physical, motor, mental and social characteristics. The use of evaluation in teaching discloses the aspects of strength and points of weakness in the individuals and programs specified, and its means are used in the purpose of guidance and classification of female student into homogenous groups as well as arranging them in the levels of determination of the achievement amount and its type according to each level (5:

468) (26: 15-50) (27: 88) (21: 119).

Ramiza al- Gharib (1990), Salah El-Sayed Qadus (1993) and Abo Al-Naga Ahmad Ezz El-Din (2003) confirm thatevaluation is an integral part of the process of education itself. It is a continuous and necessary process for the learner because by evaluating his performance, he can know his performance and compare between this level and the effort exerted by him and this may motivate him to exert more efforts to reach further achievement, and is also a necessary process for the teacher to be able to collect his students and determine their mental, psychological and physical levels (6: 9) (8:240) (2:134)

Ahmed Khater and Ali Al-Baik (1996) mention that the evaluation process conducted by the teacher for his students intended to know the benefit of female students from the lesson and the program of physical education, and the extent of the development of their behavior and their acquisition of motor skills (1: 4-10), and Mohammed Hassan Allawi and

NasirEddinRadwan 2008 add that assessment process aims to inform the sports coaches of the results of their efforts in teaching (15: 25-27).

The field of teaching exercises, because of its importance as a part of the lesson of physical education and as one of the practical materials taught to students of faculties of physical education, need to pay more attention and review the way to evaluate programs and associated contents, to assess the effectiveness and extent of the objectives achieved objectively. The subject of basic principles of exercise also require the establishment of specific standards by which we can to the level of female students' achievement of their teaching methods and the performance of their motor skills, whether by using or without tools and devices.

Usually the motor performance of the exercises is evaluated through the practical "applied" tests that are being made to the students of the Faculty of Physical Education-Mansoura University in scores, but the scores obtained as a result of these tests do not have

a specific standards that reflects the ability of the student to perform various motor skills, the level reached and the necessary level to be reached after her study of these skills.

In this regard, Mohammed Sobhi Hassanein (2003) points out that such scores obtained are crude scores that have no meaning or significance unless they have a specific standard by which the level of the student can be defined and the extent of its farness from the mean in the group to which she belongs.

This is consistent with what Salah El-Sayed Qadus (1993) explained as the test gives a score but does not specify the status of the individual in relation to his group, and the crude score does not give an indication but requires a standard that is indicated by comparing the score of performance of the female student to other students if the same test is applied to them (8: 251).

As the exercises of the ball as one of the contents of the exercise curriculum and one of the types of exercises that test the female students of

the second year of the Faculty of Physical Education-Mansoura University as the curriculum includes multiple skills with accurate technical technique, and the various difficulties and their need for specific motor abilities and physical requirements when performing them.

As the researcher noted during the period of her work in the field of teaching exercises that the evaluation of students during the applied test is made subjectively and depends on the experience of each member, and that the small hand tools, including the "ball" lacks a standard guided by the evaluation, so this was a motivation for the researcher to develop a standard to be a guide when evaluating the female students in performing motor skills related to the ball exercise and determining their level in a manner close to the objectivity. This is in line with what Mohammed Hassan Allawi, Mohammed Nasr El-Din Radwan (2008) confirmed that the standards are used as a means to estimation individual measurements and to determine the level of each individual compared to his or her peers

practically and statistically (15: 381) as they are the best types of levels used to divide a large number of individuals and the same age, sex and ability (36: 243)

The overall quality of the educational process begins with the student and the overall quality of the student's education is to achieve the standard conditions and specifications of the mind and performance and the first of these conditions and standard specifications to determine the standard levels of evaluation of this female student (31) (19: 14) (27: 83)

The researcher considers that setting the standard levels for female students is considered an incentive for them to carry out the self-assessment process using standardized criteria in which they can identify the level of their skill performance and show them the weaknesses to be treated and also highlights their strengths and work to maintain them. The researcher tries to participate by establishing standard levels for motor skills using the ball for female students of the second year of the Faculty of Physical Education-Mansoura University that may help the teaching staff members and

their assistants to raise the level of female students to better levels.

**Research objective:**

It aims to setting a standard for evaluating the second year female students of the Faculty of Physical Education Mansoura University in performing the motor skills of the ball exercises.

**Research Questions:**

What is the proposed scenario for the evaluation of female students of the second year in the Faculty of Physical Education-Mansoura University in performing the motor skills of the ball exercises?

**Research procedures:**

**Research Methodology:-** The researcher used the descriptive surveying method because it

suits the nature and procedures of the research.

**Research population and sample:**

The research was conducted on the female students of the second year of the Faculty of Physical Education-Mansoura

University and enrolled in the academic year 2017-2018 and they are 200 female students with percentage (73.62%) of the total number of female students (Research population) annex (8) after excluding:

- Female students participating in the pilot experiment.
- Female students who were absent during the evaluation process.
- Injured and sick female students.

**Table (1)**

**Classification of research sample and population**

Sample	Number	Percentage (%)
Primary sample	200	%73.62
Pilot sample	20	%7.326
Excluded	53	%19.413
Total research sample	273	%100

**Data collection tools:**

**Content analysis:**

A. Scientific references specialized in the field of exercises in order to reach its structural with its various branches and levels and they

are the references numbers: (10), (11), (23), (28).

B. Analysis of the description of the curriculum of basic principles of

exercises for the second year of the Faculty of Physical Education-Mansoura

**University to identify:**

\* Identify the evaluation methods used in the curriculum of basic principles of exercises 2.

\* Identify the motor skills of the ball.

C. Results of the reference studies that dealt with the development of standard levels related to the research subject or some of its components.

**Personal interviewing:**

Some interviews were conducted with some experts in the field of exercise, in order to reach ideas and dimensions that help to design the standards under research, in addition to making use of their opinions in laying down the basic pillars for setting the standard.

**Standard:**

The questionnaire was designed through content analysis and interviews as follows:

\*Design a questionnaire to setting a standard for

evaluating the female students of the second year in the Faculty of Physical Education-Mansoura University in performing motor skills for ball exercises.

**Steps to establish the standard:**

- The motor skills of the ball exercises, which all students can perform, were determined and classified into four levels and they are:

1- Average level.

2- Above average level.

3- High level.

4- Very high level.

- Then, the exercises were presented in the form of a questionnaire to the experts of the faculty members and those who have experience in teaching the exercises in the faculties of physical education to give an opinion about the classification of the motor skills of the ball exercises and the difficulty level in their performance, annex (1)

- Each level of the motor skills of the ball was separated, annex (3)

**Table (2)**

**Percentages for the opinions of experts in motor skills using the ball and  $\chi^2$  N=9**

Levels	the opinions of experts										$\chi^2$
	S	Skill no.	Freq uency	%							
	1	١	٩	١٠٠							
	2	٢	٨	٨٨.٩	١	١١.١					*٠.٤٤
	3	٦	٧	٧٧.٨	١	١١.١	١	١١.١			*٧.٩٩
	4	٨	٨	٨٨.٩	١	١١.١					*٠.٤٤
	5	٩	٩	١٠٠							
	6	١٠	٨	٨٨.٩	١	١١.١					*٠.٤٤
	7	١١	٩	١٠٠							
	8	١٢	٧	٧٧.٨	١	١١.١	١	١١.١			*٧.٩٩
	9	١٣	٨	٨٨.٩	١	١١.١					*٠.٤٤
	10	١٥	٩	١٠٠							
	11	١٦	٨	٨٨.٩	١	١١.١					*٠.٤٤
	12	١٧	٩	١٠٠							
	13	١٩	٩	١٠٠							
	14	٢٠	٨	٨٨.٩	١	١١.١					*٠.٤٤
	15	٢١	٩	١٠٠							
Avera ge level	16	٢٢	٩	١٠٠							
	17	٢٣	٧	٧٧.٨	١	١١.١	١	١١.١			*٧.٩٩
	18	٢٧	٩	١٠٠							
	19	٢٨	٧	٧٧.٨	١	١١.١	١	١١.١			*٧.٩٩
	20	٣٠	٩	١٠٠							
	21	٣٣	٨	٨٨.٩	١	١١.١					*٠.٤٤
	22	٣٤	٨	٨٨.٩	١	١١.١					*٠.٤٤
	23	٣٥	٨	٨٨.٩	١	١١.١					*٠.٤٤
	24	٣٦	٧	٧٧.٨	١	١١.١	١	١١.١			*٧.٩٩
	25	٣٧	٧	٧٧.٨	١	١١.١	١	١١.١			*٧.٩٩
	26	٣٨	٩	١٠٠							
	27	٣٩	٨	٨٨.٩	١	١١.١					*٠.٤٤
	28	٤٠	٩	١٠٠							
	29	٤٢	٩	١٠٠							
	30	٤٤	٩	١٠٠							
	31	٤٥	٩	١٠٠							
	32	٤٦	٨	٨٨.٩	١	١١.١					*٠.٤٤
	33	٤٧	٧	٧٧.٨	١	١١.١	١	١١.١			*٧.٩٩
34	٥٣	٧	٧٧.٨	١	١١.١	١	١١.١			*٧.٩٩	

**Follow Table (2)**

Percentages for the opinions of experts in motor skills using the ball and  $\chi^2$  N=9

Levels	the opinions of experts										$\chi^2$
	S	Skill no.	Freq uency	%	Freq uency	%	Freq uency	%	Freq uency	%	
	35	04	9	100							
	36	70	8	88.9	1	11.1					*0.44
	37	74	9	100							
	38	71	9	100							
	39	72	8	88.9	1	11.1					*0.44
	40	73	7	77.8	1	11.1	1	11.1			*7.99
	41	142	7	77.8	1	11.1	1	11.1			*7.99
	42	143	8	88.9	1	11.1					*0.44
	43	148	8	88.9	1	11.1					*0.44
	44	102	8	88.9	1	11.1					*0.44

Tabular  $\chi^2(0.05, 2) = 5.991$ , Tabular  $\chi^2(0.05, 1) = 3.841$

Table 2 shows statistically significant differences between the percentages of experts' opinions in motor skills using the ball for the average level. The calculated  $\chi^2$  values exceeded their tabular value at

a significance level of 0.05. This means that there are differences between the opinions of the experts in each skill and in favor of the highest frequency.

Table (3)

Percentages for the opinions of experts in motor skills using the ball and  $\chi^2$  N=9

Levels	the opinions of experts										$\chi^2$
	S	Skill no.	Frequency	%	Frequency	%	Frequency	%	Frequency	%	
	1	3	1	11.1	8	88.9					*0.44
	2	4	1	11.1	8	88.9					*0.44
	3	7			9	100					
	4	14			9	100					
Above average level	5	18	1	11.1	8	88.9					*0.44
	6	24			9	100					
	7	20	1	11.1	8	88.9					*0.44
	8	29	1	11.1	8	88.9					*0.44
	9	41			9	100					
	10	43			9	100					-
	11	49	1	11.1	8	88.9					*5.44
	12	02	1	11.1	7	77.8	1	11.1			*7.99

Follow Table (3)

Percentages for the opinions of experts in motor skills using the ball and  $\chi^2$  N=9

S	Skill no.	the opinions of experts								$\chi^2$
		Frequency	%	Frequency	%	Frequency	%	Frequency	%	
13	00	1	11.1	7	77.8	1	11.1			*7.99
14	06			9	100					
15	07	1	11.1	7	77.8	1	11.1			*7.99
16	09			9	100					
17	67	1	11.1	7	77.8	1	11.1			*7.99
18	70	1	11.1	8	88.9					*0.44
19	74	1	11.1	8	88.9					*7.99
20	70	1	11.1	7	77.8	1	11.1			*7.99
21	76	1	11.1	8	88.9					*0.44
22	77	1	11.1	8	88.9					*0.44
23	78			9	100					
24	79	1	11.1	8	88.9					*0.44
25	81			9	100					
26	83	1	11.1	8	88.9					*0.44
27	80			9	100					
28	104	1	11.1	8	88.9					*0.44
29	100	1	11.1	8	88.9					*0.44
30	106	1	11.1	8	88.9					*0.44
31	127			9	100					
32	128	1	11.1	7	77.8	1	11.1			*7.99
33	129			9	100					
34	130	1	11.1	7	77.8	1	11.1			*7.99
35	131	1	11.1	8	88.9					*0.44
36	132			9	100					
37	130	1	11.1	8	88.9					*0.44
38	136	1	11.1	7	77.8	1	11.1			*7.99
39	140	1	11.1	8	88.9					*0.44
40	144			9	100					
41	140			9	100					
42	146	1	11.1	7	77.8	1	11.1			*7.99
43	147	1	11.1	7	77.8	1	11.1			*7.99
44	149	1	11.1	8	88.9					*0.44
45	100	1	11.1	8	88.9					*0.44
46	101	1	11.1	7	77.8	1	11.1			*7.99
47	103			9	100					
48	104	1	11.1	7	77.8	1	11.1			*7.99

Tabular  $\chi^2(0, 0, 2)=5.991$ , Tabular  $\chi^2(0, 0, 1)=3.841$

Table 3 shows differences between the statistically significant percentages of experts'

opinions in motor skills using the ball for the average level. The calculated  $\chi^2$  values exceeded their tabular value at a significance level of 0.05.

This means that there are differences between the opinions of the experts in each skill and in favor of the highest frequency.

**Table (4)**  
**Percentages for the opinions of experts in motor skills using the ball and  $\chi^2$**   
**N=9**

Levels	S	Skill no.	the opinions of experts								$\chi^2$
			Frequency	%	Frequency	%	Frequency	%	Frequency	%	
High level	1	0	1	11.1	1	11.1	1	11.1	1	11.1	0.99
	2	26					1	11.1	1	11.1	0.44
	3	31			1	11.1	1	11.1	1	11.1	0.99
	4	32			1	11.1	1	11.1	1	11.1	0.99
	5	00					1	11.1			—
	6	08					1	11.1			—
	7	71					1	11.1	1	11.1	0.44
	8	72					1	11.1	2	22.2	2.77
	9	73					1	11.1			—
	10	76	1	11.1	1	11.1	1	11.1			0.99
	11	79					1	11.1	1	11.1	0.44
	12	80			3	33.3	1	11.1			1
	13	82					1	11.1	2	22.2	2.77
	14	83					1	11.1	3	33.3	1
	15	87			1	11.1	1	11.1	1	11.1	0.99
	16	88					1	11.1			—
	17	93					1	11.1	3	33.3	1
	18	99					1	11.1	3	33.3	1
	19	100					1	11.1	1	11.1	0.44
	20	102			1	11.1	1	11.1	1	11.1	0.99
	21	103					1	11.1			—
	22	107					1	11.1	2	22.2	2.77
	23	109					1	11.1	1	11.1	0.44
	24	110					1	11.1	2	22.2	2.77
	25	111			2	22.2	1	11.1			2.77
	26	112					1	11.1	3	33.3	1
	27	110					1	11.1	2	22.2	2.77
	28	118					0	00.0	2	22.2	.1
	29	119					1	11.1	3	33.3	1
	30	121					1	11.1	3	33.3	1
	31	122					0	00.0	2	22.2	.1
	32	123					0	00.0	2	22.2	.1
	33	124			1	11.1	1	11.1	1	11.1	0.99
	34	123					1	11.1			—
	35	124					1	11.1	3	33.3	1
	36	127					1	11.1	2	22.2	2.77
	37	128					0	00.0	2	22.2	.1
	38	129					1	11.1	3	33.3	1

Tabular  $\chi^2(0.05, 2) = 5.991$ , Tabular  $\chi^2(0.05, 1) = 3.841$

Table (4) shows statistically significant differences between the percentages of experts' opinions in the ball skills of the high level. The calculated values of  $\chi^2$  exceeded the tabular value at a significance level of 0.05. This means that there are differences between the opinions of the experts in each skill and in favor of the highest frequency In the case

of higher repetition except the skill no.(48), (78), (79), (95), (120), (122), (128), (129), (142), (144)and there are no statistically significant differences among the percentages of the experts' opinions as the value of the calculated  $\chi^2$  was less than the tabular value of the freedom level (1) at a significant level (0.05).

**Table (5)**  
**Percentages for the opinions of experts in motor skills using the ball and  $\chi^2$  N=9**

Levels	S	Skill no.	the opinions of experts								$\chi^2$
			Frequency	%	Frequency	%	Frequency	%			
Very high level	1	٤٨					٢	٢٢,٢	٧	٧٧,٨	٢,٧٧
	2	٥١							٩	١٠٠	—
	3	٦٥					١	١١,١	٨	٨٨,٩	*٥,٤٤
	4	٦٨					٢	٢٢,٢	٧	٧٧,٨	٢,٧٧
	5	٨٤					٣	٣٣,٣	٦	٦٦,٧	١
	6	٨٩					٢	٢٢,٢	٧	٧٧,٨	٢,٧٧
	7	٩٠					٤	٤٤,٤	٥	٥٥,٦	.١
	8	٩١					٢	٢٢,٢	٧	٧٧,٨	٢,٧٧
	9	٩٢					٤	٤٤,٤	٥	٥٥,٦	.١
	10	٩٤					٣	٣٣,٣	٦	٦٦,٧	١
	11	٩٥					٤	٤٤,٤	٥	٥٥,٦	.١
	12	٩٦					٢	٢٢,٢	٧	٧٧,٨	٢,٧٧
	13	٩٧					٣	٣٣,٣	٦	٦٦,٧	١
	14	٩٨					٢	٢٢,٢	٧	٧٧,٨	٢,٧٧
	15	١٠١					٢	٢٢,٢	٧	٧٧,٨	٢,٧٧
	16	١٠٨							٩	١٠٠	—
	17	١١٢					٤	٤٤,٤	٥	٥٥,٦	.١
	18	١١٣					٢	٢٢,٢	٧	٧٧,٨	٢,٧٧
	19	١١٦					٢	٢٢,٢	٧	٧٧,٨	٢,٧٧
	20	١١٧					٣	٣٣,٣	٦	٦٦,٧	١
	21	١٢٠							٩	١٠٠	—
	22	١٢٥					٤	٤٤,٤	٥	٥٥,٦	.١
	23	١٢٦							٩	١٠٠	—
	24	١٤١					١	١١,١	٨	٨٨,٩	*٥,٤٤

Tabular  $\chi^2(\cdot, \cdot, \cdot, \cdot)=5.991$ , Tabular  $\chi^2(\cdot, \cdot, \cdot, \cdot)=3.841$

Table (5) shows statistically significant differences between the percentages of experts' opinions in the ball skills of the

high level. The calculated values of  $\chi^2$  exceeded the tabular value at a significance level of 0.05. This means that there are differences between the opinions of the experts in each skill and in favor of the highest frequency. In the case of higher repetition except the skill no. (94), (96), (97), (98), (101), (102), (103), (104), (107), (108), (112), (123), (125), (135), (136), (137), (138), (139), (140), (141), (146), (147) and (148) and there are no statistically significant differences among the percentages of the experts' opinions as the value of the calculated  $\chi^2$  was less than the tabular value of the freedom level (1) at a significant level (0.05).

#### **Pilot Study:**

The pilot study was conducted on a sample of (20) female students of the second year and non-participants in the research sample of students of high level in the performance of motor skills of ball exercise to ensure the validity of exercises (commonly used) to apply and stand at the level of their difficulty. The findings of this study resulted in the deletion of skills (48), (78),

(79), (95), (120), (122), (128), (129), (142), (144) (97), (98), (101), (102), (103), (104), (107), (108), (112), (123), (125), (135), (136), (137), (138), (139), (140), (141), (146), (147), (148) at the very high level. The findings of this study resulted in the deletion of the previous because of the difficulty of their performance, as this study was in accordance with the views of the majority of experts in this regard, and the reviewers' score of evaluation for all female students in these skills did not lead (0).

#### **Basic Study:**

The students of the second year of the faculty (research sample) were taught on the performance of the motor skills using the ball listed in Annex (2), depending on the score of their difficulties in the period from 02/03/2017 to 16/04/2017 at two hours per week during the exercise sessions scheduled according to the study plan.

#### **Evaluation of performance skills:**

1. A form was used to evaluate the motor skills using the ball for the female students of the second year in the

Faculty of Physical Education- Mansoura University (4)

2. The performance of the motor skills under study was evaluated by the Evaluation Committee of the teaching staff by placing a score ranging

between (0, 10) scores for each student according to the level of her performance in each skill, annex (5) and there is a form for the scores of one of the female students, annex (6).

**Table (6)**  
**shows the level of difficulty and the score of performance of the motor skills of the ball exercises under study**

<b>the level of difficulty</b>	<b>the scores</b>
A	1:3.2
B	3.3:5.4
C	5.5:7.7
D	7.8:10

**Difficulty levels:**

- (A) Average difficulty score
- (B) Above average difficulty score
- (C) High difficulty score
- (D) Very high difficulty score

**Validity, reliability and objectivity coefficient of the motor skills under study:**

**First: Validity coefficient:**

• The score of validity is the most important factor for the existence of the scale. The true scale is the measure that accurately measures the phenomenon to be measured, and Mohammed Hassan Allawi and Mohammed Nasr El-Din Radwan 2008 (14: 326) indicate that we often resort to the self-report of the experts to obtain grades for the

phenomenon to be measured. The grades of the experts with scientific and applied experience are important in determining the validity of the contents of some tests of physical, motor or skill abilities, depending on the quality of the experts and their scientific and theoretical experience in the field of the phenomenon to be measured and the opportunities available for observation more than once. This motivated the research to get the opinions of 9 experts who have experience in teaching exercises in faculties of physical education to determine the score of validity of the motor skills of

the ball. Most of the experts' opinions agreed on the validity of the skills used in measuring the ability of female students to perform these types of exercises under study.

**Second: Reliability coefficient:**

To find the reliability coefficient, the researcher used the method of reevaluation of female students (20 students) in the performance of ball skills with a time interval of one week, taking into account the same conditions of the first evaluation.

**Table (7)**  
**Reliability coefficient for performing motor skills under study N = 20**

	First evaluation		Second evaluation		R	T
	M	F	M	F		
(A)Average	1.9.093	1.00.	1.9.712	1.000	.982	.278
(B) Above average	217.289	0.4.7	217.109	0.417	.996	1.116
(C) High	117.73.	3.338	117.937	3.78.	.900	1.2.7
(D) Very high	49.94.	1.0.3	0.0.36	0.9.0	.780	.707
Total	493.402	7.977	493.743	7.080	.970	.733

Tabular R value at significance level  $.05 = .444$

Tabular T value at significance level  $.05 = 2.93$

Table (7) shows statistically significant differences between the average of the first evaluation and the average of the second evaluation, indicating the existence of a reliability coefficient between the reviewers' evaluation of the skills under study. This is confirmed by the high correlation coefficient resulting from the comparison of scores of the first and second evaluations..

**Third: Objectivity coefficient:**

The objectivity of the motor skills evaluation scores under study was calculated by 3 teaching staff members who taught the exercises to evaluate the female students' performance of the motor skills of the ball exercises and the following items were taken into account:

- Reviewers' understanding of the nature of motor skills, and their score of difficulty.

**Table (8)**  
**Objectivity coefficient of scores of motor skills under study N= 20**

	Sum of Squares(SS)	Degrees of freedom	Mean of squares		F
(A)Average	Between groups	٠.٠١٠	٢.٠٠٠	٠.٠٠٥	٠.٠٠٢
	Within groups	١٤٢.٩٦٥	٥٧.٠٠٠	٢.٥٠٨	
	Total	١٤٢.٩٧٥	٥٩.٠٠٠		
(B) Above average	Between groups	٠.١٨٤	٢.٠٠٠	٠.٠٩٢	٠.٠٠٣
	Within groups	١٧٥٤.١٥٧	٥٧.٠٠٠	٣٠.٧٧٥	
	Total	١٧٥٤.٣٤١	٥٩.٠٠٠		
(C) High	Between groups	١.٢٨٤	٢.٠٠٠	٠.٦٤٢	٠.٠٤٧
	Within groups	٧٧٠.٤٢٣	٥٧.٠٠٠	١٣.٥١٦	
	Total	٧٧١.٧٠٦	٥٩.٠٠٠		
(D) Very high	Between groups	٠.٣١٢	٢.٠٠٠	٠.١٥٦	
	Within groups	٥٤.١١٩	٥٧.٠٠٠	٠.٩٤٩	
	Total	٥٤.٤٣٠	٥٩.٠٠٠		
Total	Between groups	٢.٤٠٧	٢.٠٠٠	١.٢٠٤	٠.٠٢١
	Within groups	٣٢٧٢.٠٧٩	٥٧.٠٠٠	٥٧.٤٠٥	
	Total	٣٢٧٤.٤٨٦	٥٩.٠٠٠		

Tabular F value at  $\alpha = 0.05 = 3.14$

Table (8) shows statistically significant differences between the averages of the committees evaluation (first, second and third), indicating the similarity of the evaluation between the three committees and the objectivity of this evaluation and this is confirmed by the tabular F value between evaluation degrees of the three groups.

**Statistical treatments:**

The researcher used the statistical treatments for the

basic data in this research and they were as follows: Percentage-Frequencies-Arithmetic mean-Standard deviation-Correlation coefficient-Analysis of variance and the equations of Z- score and T-score to setting a standard for performing motor skills under study.

**Presentation, interpretation and discussion of results:**

**Presentation and interpretation of results:**

**Table (9)**  
**Percentage of motor skills under study "Number-percentage"**

	Number	Percentage
(A)Average	٤٤	% ٢٨.٥٧
(B) Above average	٤٨	% ٣١.١٧
(C) High	١٨	% ١١.٦٩
(D) Very high	٦	% ٣.٨٩
Delat skills	٣٨	% ٢٤.٦٨
Total	١٥٤	% ١٠٠

Table (9) shows that the number of average skills is 44 motor skills of the ball and 28.57%, the number of above average skills is 48 motor skills of the ball and 31.17%, the number of high skills is 18

motor skills of the ball and 11.69%, the number of very high skills is 6 ball skills of 3.89 %, the number of skills deleted is 38 dynamic skills of the ball and 24.68% of the total number of motor skills.

**Table (10)**  
**Number of skills within each level, the lowest score, the highest score and the total number of motor skills under study and the mean and deviation of each level of skills**

	Average skills	Above average skills	High skills	Very high skills	Total
Number	٤٤	٤٨	١٨	٦	١١٦
Lowest	٤٤.٠٠٠	١٥٣.٦٠٠	٩٩.٠٠٠	٤٦.٨٠٠	٣٤٣.٤٠٠
Highest	١٣٦.٤٠٠	٢٥٩.٢٠٠	١٣٨.٦٠٠	٦٠.٠٠٠	٥٩٤.٢٠٠
Mean	١٠٩.٦٠٧	٢١٦.٢٣٠	١١٧.٨١٥	٥٠.٠١٤	٤٩٣.٦٦٦
Deviation	١٥.٨٧٦	٣.٣٢٦	١.٦٢٤	٠.٨٤٢	٢١.٦٦٨

Table (10) shows that the number of average motor skills of the ball is (44) skills and the lowest score within this level 44 and the highest degree is 136.400, and the number of above average motor skills of

the ball is (48) skills and the lowest score within this level is 153,600 and the highest score is 259.200. The total high motor skills of the ball is (18) skills and the lowest score within this level is 99 and the

highest score is 138.600, and that the number of very high motor skills is (6) skills and the lowest score within this level of 46,800 and the highest score

60, the total skills is (116) skills of the ball and the lowest score within the total is 343.400 and the highest score is 594.200.

**Table (11)**

**Z-score, T-score and crude score for the motor skills under study N=200**

Z-score	T-score	Level of difficulty				Total
		Average	Above average	High	Very high	
0-	0	30.227	199.700	109.790	40.804	380.327
1-	10	47.103	203.927	111.319	47.747	407.994
2-	20	71.979	207.202	112.943	47.488	428.762
3-	30	77.800	209.078	114.077	48.330	450.330
4-	40	93.731	212.904	117.191	49.172	471.998
0	50	109.707	217.230	117.810	50.014	493.767
1	60	120.483	219.007	119.439	50.807	510.334
2	70	141.309	222.882	121.073	51.798	537.002
3	80	107.230	227.208	122.787	52.040	558.770
4	90	173.111	229.034	124.311	53.382	580.338
5	100	188.987	232.870	120.930	54.224	602.006

Table (11) shows the crude score, Z-score, T-score corresponding to the

motor skills (Average-Above average-High-Very high) under study

**Table (12)**

**The lowest score and the highest score and estimation in motor skills under study N=20**

Estimates	Average level		Above average level		High level		Very high level		Total	
Very weak	30.227	47.103	199.700	203.927	109.790	111.319	40.804	47.747	380.327	407.994
Weak	47.103	77.800	203.927	209.078	111.319	114.077	47.747	48.330	407.994	450.330
Pass	77.800	109.707	209.078	217.230	114.077	117.810	48.330	50.014	450.330	493.767
Good	109.707	141.309	217.230	222.882	117.810	121.073	50.014	51.798	493.767	537.002
Very good	141.309	173.111	222.882	229.034	121.073	124.311	51.798	53.382	537.002	580.338
Excellent	173.111	188.987	229.034	232.870	124.311	120.930	53.382	54.224	580.338	602.006

Table (12) shows the lowest and highest score of the level of average skills of the

ball and the corresponding estimates, the lowest score and the highest score of the level of

above average of the ball and the corresponding estimates, and the lowest score and highest score of the level of high skills of the ball and corresponding estimates, and the lowest score and higher

score the level of very high skills of the ball and corresponding estimates, and the lowest and highest score in the total number of motor skills of the ball under study and the corresponding estimates.

**Table (13)**  
**Z-score, T-score, crude score, estimation and standard levels for average skills using the ball N=200**

Z-score	T-score	Crude score for average skills	Estimates	Standard levels
0-	•	30.227	Very weak	From 0% to less than 10%
1-	10	46.103	Weak	From 10% to less than 30%
2-	20	61.979		
3-	30	77.800	Pass	From 30% to less than 50%
4-	40	93.731	Good	From 50% to less than 70%
5	50	109.607		
6	60	125.483	Good Very good	From 70% to less than 90%
7	70	141.309		
8	80	157.230	Excellent	From 90% to 100%
9	90	173.111		
10	100	188.987		

Table (13) shows Z-score, T-score, crude score and the standard levels corresponding to them in the

average motor skills of the ball and the estimates corresponding to each Z-score.

**Table (14)**  
**Z-score, T-score, crude score, estimation and standard levels for above average skills using the ball N=200**

Z-score	T-score	Crude score for above average skills	Estimates	Standard levels
0-	•	199.700	Very weak	From 0% to less than 10%
1-	10	202.927	Weak	From 10% to less than 30%
2-	20	206.202		
3-	30	209.078	Pass	From 30% to less than 50%
4-	40	212.904	Good	From 50% to less than 70%
5	50	216.730		
6	60	219.007	Good Very good	From 70% to less than 90%
7	70	222.882		
8	80	226.208	Excellent	From 90% to 100%
9	90	229.034		
10	100	232.860		

Table (14) shows Z-score, T-score, crude score, estimation and the standard levels corresponding to them in

the above average motor skills of the ball and the estimates corresponding to each Z-score.

**Table (15)**  
**Z-score, T-score, crude score, estimation and standard levels for high skills using the ball N=200**

Z-score	T-score	Crude score for high skills	Estimates	Standard levels
0-	•	109.790	Very weak	From 0% to less than 10%
1-	10	113.319	Weak	From 10% to less than 30%
2-	20	112.943		
3-	30	114.067	Pass	From 30% to less than 50%
4-	40	117.191		
•	50	117.810	Good	From 50% to less than 70%
1	60	119.439		
2	70	121.063	Good Very good	From 70% to less than 90%
3	80	122.687		
4	90	124.311	Excellent	From 90% to 100%
5	100	120.930		

Table (15) shows Z-score, T-score, crude score, estimation and the standard levels corresponding to them in

the high motor skills of the ball and the estimates corresponding to each Z-score.

**Table (16)**  
**Z-score, T-score, crude score, estimation and standard levels for very high skills using the ball N=200**

Z-score	T-score	Crude score for very high skills	Estimates	Standard levels
0-	•	40.804	Very weak	From 0% to less than 10%
1-	10	47.747	Weak	From 10% to less than 30%
2-	20	47.488		
3-	30	48.330	Pass	From 30% to less than 50%
4-	40	49.172		
•	50	50.014	Good	From 50% to less than 70%
1	60	50.856		
2	70	51.698	Very good	From 70% to less than 90%
3	80	52.040		
4	90	53.382	Excellent	From 90% to 100%
5	100	54.224		

Table (16) shows Z-score, T-score, crude score, estimation and the standard levels corresponding to them in

the very high motor skills of the ball and the estimates corresponding to each Z-score.

**Table (17)**  
**Z-score, T-score, crude score, estimation and standard levels for sum total of skills using the ball N=200**

Z-score	T-score	Crude score for total of skills	Estimates	Standard levels
0-	0	308.226	Very weak	From 0% to less than 10%
1-	10	406.994	Weak	From 10% to less than 30%
2-	20	428.772		
3-	30	450.330	Pass	From 30% to less than 50%
4-	40	471.998		
5	50	493.766	Good	From 50% to less than 70%
6	60	515.324		
7	70	537.002	Very good	From 70% to less than 90%
8	80	558.770		
9	90	580.338	Excellent	From 90% to 100%
10	100	602.006		

Table (15) shows Z-score, T-score, crude score, estimation and the standard levels corresponding to them in the motor skills of the ball and the grades corresponding to each Z-score.

#### **Discussion of results:**

Illustrated by Table (13) that the lowest score in the average level skills using the ball is very weak (30.227) and the highest score in the same estimation was (less than 46.103), and the lowest score in the weak estimation was (46.10), the highest score in the same estimation was (less than 77,855) and the lowest score in

the pass estimation was (77.855) and the highest score in the same estimation was (less than 109.607). The lowest score in the good estimation was (109.607) and the highest score in the same estimation was (less than 141,359), and the lowest score in the very good was (141,359) and the highest score in the same estimation was (less than 173.111), and the lowest score in the excellent estimation was (173.111) and the highest score in the same estimation was (188.98).

**Kamal Abd El-Hamid Ismail,**  
**Mohammed Nasr El-Din**

**Radwan (1994)**, believes that the standards are tables that are included in the test instructions. They clearly show the scores obtained by the students in the reference samples. The tables of the standards show the crude score and the derived scores in the form of parallel columns, making the conversion to the derived scores easy, and noting that the scores in the standards tables do not show whether the performance is good or not. (10: 182)

Illustrated by Table (14) that the lowest score in the above average skills using the ball corresponds to a very low estimation of (199,600) and the highest score in the same estimation was (less than 202.926), and the lowest score in the weak estimation was (202.926) and the highest score in the same estimation was (less than 209.578), the lowest score in the pass estimation was (209.578) and the highest score in the same estimation was (less than 216.230). The lowest score was (216.230) and the highest score in the same estimation was (less than 222.882), and the lowest score in the very good

estimation was (222.882) and the highest score in the same estimation was (less than 229.534), and the lowest score in the excellent estimation was (229.534) and highest score in the same estimation was (232.860).

**Mohammed Sobhi Hassanein (1995)**, points out that the value of the use of the standards is evident in the field of physical education when using the tests because of the difference in the measurement units in the tests. Therefore, the researchers seek to convert the different crude scores in their unit to uniform standards in their unit, so the evaluation process become easy and these standards usually take the form of tables and some persons call them the ruler. (12: 34)

Illustrated by Table (15) that the lowest score in high-level skills using the ball corresponds to a very weak estimation of (109.695) and the highest score in the same estimation was (less than 111.319), the lowest score in the weak estimation was (111.319) and the highest score in the same estimation was (less than 114.567). The lowest score in the pass estimation was

(114.567) and the highest score in the same estimation was (less than 117.815). The lowest score in the good degree was (117.815) and the highest degree in the same estimation was (less than 121.063) and the lowest score in the very good estimation was (121.063) and the highest score in the same estimation was (less than 124.311) and the lowest score in the excellent estimation was (124.311) and the highest score in the same estimation was (125.935).

Standards are values that represent the performance of a particular community in a given test. The word "standards" are used to determine the level of group scores and they are called the "standardization group". The standards are crude scores that have no meaning except when they are placed in tables and the conversion of these scores to standard scores that help us determine the level of the female student compared to her students. The importance of standards is the basis for judging the phenomenon from the inside, and it takes the quantitative formula in most cases and is determined in light

of the real characteristics of the phenomenon and reflect the current level of the individual and a means of comparison and evaluation can be used in the prediction and the diagnosis of weaknesses and strengths and etc. (21)

Illustrated by Table (16) that the lowest score in the skills of the very high level using the ball corresponds to a very weak estimation of (45.804) and the highest score in the same estimation was (less than 46.646), and the lowest score in the weak estimation was (46.646) and the highest estimation in the same estimation was (less than 48.330), and the lowest score in the pass estimation was (48.330) and the highest score in the same estimation was (less than 50.014). The lowest score in the very good estimation was (50.014) and the highest score in the same estimation was (less than 51.698) and the lowest score in the very good was (51.698) and the highest score in the same estimation was (less than 53.382), and the lowest score in the excellent estimation was (53.382) and the highest score

in the same estimation was (54.224).

Standards should not be seen as standard levels of performance, or as general goals, to which individuals must reach, or to represent what students should attain in achievement, but rather as a means of comparison and evaluation.

And that the standards reflect the current level of individuals, especially the achievement standards, which in sports do not necessarily represent the levels that they wish to reach because they do not reflect standard levels, especially with regard to physical growth and physical, motor and skill abilities. (10: 183, 184)

Table (17) shows that the lowest score in the total number of motor skills of the ball corresponds to a very weak score of (385.326) and the highest score in the same estimation was (less than 406.994), and the lowest score in the weak estimation was (406.994) and the highest score in the same estimation was (less than 450.330), and the lowest score in the pass estimation was (450.330)

and the highest score in the same estimation was (less than 493.666), and the lowest score in the good estimation was (493.666) and the highest score in the same estimation was (less than 537.002), and the lowest score in the very good score was (537.002) and the highest score in the same estimation was (less than 580.338) and the lowest score in the excellent estimation was (580.338) and the highest score in the same estimation was (602.006).

### **Conclusions and recommendations:**

#### **First: Conclusions:**

In light of the procedures and results of the research, the following conclusions were drawn:

1-Classification of motor skills for the exercise of the ball and they are performed with gradual difficulty levels and at the following levels:

\* (A) Average difficulty score of 44 motor skills of the ball with 28.57% of the sum total of skills,

\* (B) Above average difficulty score of 48 motor skills of the ball with 31.17% of the sum total of skills,

\* (C) High difficulty score of 18 motor skills of the ball with 11.69% of the sum total of skills.

\* (D) Very high difficulty score of 6 motor skills of the ball with 3.89% of the sum total of skills.

2-Determine the score of each skill of motor skills for ball exercises according to the level of difficulty.

\* The average level is limited to 1: 3.2 score.

\* The above average level is limited to 3.3: 5.4 score.

\* The high level is limited to scores between 5.5: 7.7 score.

\* The very high level is limited to between 7.8: 10 score.

3-Determination of the level of performance of motor skills for ball exercises according to the standard criterion to 6 grades and they are:-

\* Very weak

\* Weak

\* Pass

\* Good

\* Very good

\* Excellent

4- The research sample represented by the female students of the second year of the academic year 2017-2018 lies between pass and good grade.

### **Second: Recommendations:**

In the light of the conclusions of the findings of the research conclusions, the researchers recommend the following:

1- Use of the standard mentioned in the research to evaluate the female students of the second division of the Faculty of Physical Education in the performance of the motor skills for ball exercises in the annual performance score and the end of the year.

2- Presentation of the standard to the students of the second year, where each female student can stand on her performance early and the attempt to improve it.

3- Conducting other similar studies aimed at setting standard levels for evaluating students in the performance of motor skills for exercise using and without the tools and instruments of other exercises objectively.

4- setting standard levels for evaluating female students in the performance of motor skills for ball exercises in all stages of education each separately.

### **References :**

#### **First: Arabic references:**

**1- Ahmed Khater, Ali Al-Baik:** Measurement in the

Sports Field, Dar Al Ma'arif, Egypt, Ed. 2, 1996.

**2- Abo El-Naga Ahmed Ezz El-Din:** Curricula in Physical Education "For normal persons-special cases", Dar Al-Asdeka'a, Mansoura, 2003.

**3- Ibrahim Abd El-Aziz Ibrahim:** Developing standard levels for the tests of "Eurovite for motor fitness and its relation to the variables of height and weight for the pupils in the sixth year of primary school in Port Said Governorate", Scientific Journal of Physical Education and Sports Sciences, Vol. 7, Faculty of Physical Education, Mansoura University, 2006.

**4- Bastawisi Ahmed:** Foundations and theories of the movement, Dar l-Fikr Al-Arabi, Cairo, 1996.

**5- Charles A. Butcher:** Foundations of Physical Education, translated by Hassan Moawad et al., Anglo-Egyptian Library, Cairo, 1964.

**6- Ramzia Al-Gharib:** Education, A physiological, explanatory and directive study, Anglo-Egyptian Library, Cairo, 1990.

**7- SuhairBedier Ahmed:** Curricula in the field of Physical Education, Munsh'at Al-Ma'arif, Alexandria, 1995.

**8- Salah El-Sayed Hassan Qadus:** The Modern Scientific Foundations of Evaluation in Motor Performance, Al-Nahda Al-Masria Library, Cairo, 1993.

**9- Abd El-Azeem Abd El-Salam El-Fergany:** Education Development Technology, Dar Al Ma'arif, Cairo, 1993.

**10- Abd El-Moniem Suleiman Burhom, Mohammed Khamis Abo Namera:** Encyclopedia of physical exercises, Part I, Dar Al-Fikr for publication and distribution, 1995.

**11- Atteyat Mohammed Khattab, Maha Mohammed Fekry, Shahira Abd El-Wahab Shuqair:**

Fundamentals of Exercise and rhythmic exercises, Ed. 1, Markaz Al-Kitab for Publishing, Cairo, 2006.

**12- Afaf Othman Othman:** Movement is the key to learning, Dar Al Wafa'a Printing and Publishing, Alexandria, 2011.

**13- Fathy Ahmed Ibrahim, Emad El-Din Nofal:** Developing a standard for evaluating the performance of skipping rope exercises for students of the Faculty of Physical Education for Boys, Journal of theories and applications of a scientific journal specialized in the

sciences of physical education and sport, Alexandria University, 1992.

**14- Kamal Abd El-Hameed, Mohammed Nasr El-Din Radwan:** Introduction to Physical Education, Dar Al-Fikr Al-Arabi, Cairo, 1994.

**15- Laila Abd El-Aziz Zahran:** Scientific and practical foundations for exercises and technical exercises, Dar Al-Fikr Al-Arabi, Cairo, 1997.

**16- Mohammed Hassan Allawi, Mohammed Nasr El-Din Radwan:** Measurement in Physical Education and Psychology, Dar Al-Fikr Al-Arabi, Ed. 2, Cairo, 2008.

**17- Mohammed Sobhi Hassanien:** Measurement in Physical Education, Part I, I 3, Dar Al-Fikr Al-Arabi, Cairo, 1995.

**18- Mohammed Sobhi Hassanien:** Measurement and Evaluation in Physical Education and Sports, Dar Al-Fikr Al-Arabi, Part II, Ed. 5, Cairo, 2003.

**19- Mohammed Salah El-Din Mejawer, Fathy Abd El-Maksoud Adeb:** Curriculum, Edt. 9, Dar Al-Qalam, Kuwait, 1993.

**20- Mohammed Atwa Megahed, El-Metwaly Ismail Bedeir:** Quality and Accreditation in University

Education, Al-Maktaba Al-Asriyya, Mansoura, 2006.

**21- Mohammed Fathy Ali Mowafy:** Determination of standard levels of basic skills in volleyball for students of the Faculty of Physical Education, Master Thesis, Faculty of Physical Education- Mansoura University, 2009.

**22- Mohammed Mohammed Al-Hammami, Amen Anwar Al-Kholy:** Foundations of Building Physical Education Programs, Dar Al-Fikr Al-Arabi, Cairo, 1990.

**23- Mohammed Mersal Hamad Arbab:** Developing standard levels for some basic motor skills for primary school pupils aged 9-6 years in Dakahlia Governorate, Scientific Journal of Physical Education and Sports Sciences, Mansoura University, 2nd Issue, 2004.

**24- Mohammed Mersal Hamad Arbab:** Basic Principles of Exercise, second year, Faculty of Physical Education, Mansoura University, 2012.

**25- Mohammed Nasr El-Din Radwan:** Introduction to Measurement in Physical Education, Markaz Al-Kitabfor Publishing, Cairo, 2006.

**26- Mohammed Hashim Faloqui:** Educational Curriculum Building, Planning

Policy, Implementation Strategy, Modern University Office, Alexandria, 1977.

**27- Makarem Mohammed AboHarga, Mohammed SaadZaghloul:** Curricula of Physical Education, Markaz Al-Kitabfor Publishing, Cairo, 1999.

**28- Mounir Abdullah Harbi, HananAbd El-HalimRezk:** Waste in the department the commercial teacher preparation in the Faculty of Education, Tanta University in the light of some total quality standards, Journal of the Faculty of Education, No. (49), Mansoura University, May, 2002.

**29- MousaFahmy Ibrahim, Adel Ali Hassan:** Exercise and sports performances, Dar al-Ma'aref Alexandria, 1990.

**Second: Foreign references:**

**30- Bohumil kos, Zdenekteply and Rudolf volrab:** Gimnasia 1200 Ejercicios,Ejercicios con y sin elementos en la clase de educacionfisica, 1991.

**31- Bohumil Kos** Ubungen ,mitdemseil , Sporverlag Berlin 2000.

**32- Bohumil Kos and A,** Gymnastick 1200 Ubungen, Sporverlag Berlin 1995.

**33- Bohumilkos , Zdenekteply:** 1500 Ubungen

Gymnastick , sportverlag ,Sportverlag,Berlin, 2001

**34- Bott.J.,:** Rhythmic Gymnastics the Skills of the game , Cowood press, Great Britain,1995.

**35- Jastrjembskaia,N.,Titov,y.,:** Rhythmic Gymnastics, Human, 1999.

**36- Higgins,k,l:** Validity and Obgectivity of aratingscame for the overhead and forem volley ball pass, university of Oregon ,eugence, ore, 1995.

**37-mathews, D.P.ed.,:** Measurement in physical education, W.B saunders company, Philadelphia, Toronto, 1978.

**Third: Websites:**

**38- http ://ecca net firms . com / yearly conf.htm 12/1/2012 10.30 pm.**

**15/1/2012**

**39- http :[www.nbcoloynpics.com/](http://www.nbcoloynpics.com/) features/gr/2000/rhythmic**

**40- http :www. Phy . edu. Net/vp/shwthread. Php?t=1623 16/2/2012 11,30pm**

**41- http ://www.thwer.com/ gymnastics/rhy./html 30/1/2012 7.30pm.**

**42-http://www.olympic.org/uk/ sports/progrmmme/disciplinesuk (ryhthmicgy mnastics)5/2/2012 10,45pm**