

# DETERMINING THE MOST IMPORTANT PHYSICAL VARIABLES FOR VOLLEYBALL PLAYERS IN SPECIALIZED SCHOOLS

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### **Abstract**

Field of physical education and sports are the human being with all the ingredients, capabilities, capabilities and knowledge, except that scientists and specialists in the field of tests and measurement have invented many and varied tools that are in line with and commensurate with all these variables that concern the same person and this does not mean that they are They reached the ultimate accuracy, and it also does not mean that there are no mistakes, so whatever we get accurate numbers of tests and measurement, the result will differ if we use a more accurate tool and this is due to the development of devices and tools used in tests and measure Preparations and motives as well as to observation errors and experimentation based on self –evaluation, Research community represents the players of specialized schools in volleyball in Iraq for the sports season 2021/2022. The research sample was chosen in the intentional way and they are players of the specialized school in Abi Al -Khaseeb. Recommendations were:

- Using the tests extracted to evaluate and select the players- Extracting standard degrees and levels of the candidate tests from the global analysis- Conducting a similar study to other samples

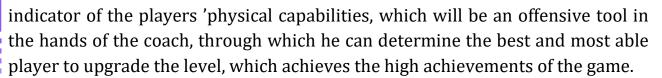
Keywords: physical variables; volleyball; specialized schools.



### 1-Introduction Research and Importance:

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Sports has taken wide steps towards sophistication and progress at all levels and this progress came as a result of the dependence of scientists and specialists the scientific approach and the search for the means that develop the field for athlete and to facilitate modern developments, whether in collective or individual games by relying on other different mathematical sciences that work to support sports training science And among those sciences is the science of tests and standards, which is one of the important and necessary scientific means associated with all sciences in the field of physical education that has a prominent role in the process of proper planning and the continuation of progress, and for the trainer to recognize the possibility of his players, he must conduct tests and measurements to identify the level to find weaknesses and aspects Their strength The axis around which the tests and measurement revolves around the field of physical education and sports are the human being with all the ingredients, capabilities, capabilities and knowledge, except that scientists and specialists in the field of tests and measurement have invented many and varied tools that are in line with and commensurate with all these variables that concern the same person and this does not mean that they are They reached the ultimate accuracy, and it also does not mean that there are no mistakes, so whatever we get accurate numbers of tests and measurement, the result will differ if we use a more accurate tool and this is due to the development of devices and tools used in tests and measure Preparations and motives as well as to observation errors and experimentation based on self-evaluation. This leads us to determine the purpose of the tests and measurement, as we reach numbers that are an indication of the characteristics of individuals according to a good specified rules, and this requires researchers to determine the trait to be tested or measured. Its manifestations so that they become observant, testing and measurement and thus defining the procedures that translate these notes into quantitative amounts that express the amount of the observation characteristic of individuals and know the quantitative differences between them, and because the ability of test devices and measurement is a high amount of stability and honesty and with less than the error is one of the most important practical pillars. The proper and accurate testing and measurement, as specialists have worked hard to innovate and diversify it to cover all areas of the test and measurement to the human characteristics and components. Therefore, the importance of research lies in providing a base for the tests and measurements that would give the true



### 1-2 Research problem:

The physical components are considered one of the most important requirements for the performance of the modern volleyball game that may be the decisive factor in winning matches, especially when it equals or met the level of the skill level of the two teams, given that the level of the physical condition on which the team is considered one of the important reasons that contribute to achieving many Among the victories, the high level of physical fitness of one of the teams enables him to perform a successful sports season, in addition to the team's high fitness increases the coach's confidence in his team and even the coach in most cases try to benefit from it and maintain it. Therefore, the research problem is determined by the following question: What is the most important special fitness components for specialized volleyball school players?

### 1-3 Research objectives:

- 1- Learn about the most important components of special fitness for specialized volleyball school players.
- 2- Learn about the level of performance of the most important fitness components of specialized school players.

### 1-4 Research fields:

1-4-1 Human field: Volleyball specialized school players in Abi Al -Khaseeb.

1-4-2 spatial field: Specialized school, Abi Al -Khaseeb.

**1-4-3 Time field:** from 4/5/2022 to 21/5/2022.

## 2-physical capabilities of the volleyball game

General physical capabilities are the basic rule and the backbone of sports activities, including the special physical capabilities, which mean the privacy of sports or game practice, and this means that each of the games requires a specific type of physical abilities. Volleyball is one of the group games that is characterized by its small stadium and shortening the period of touching the ball and the number of times it touched and resolves its result by points and not at a specific time, as well as the multiplicity of its movements and its repetition, which

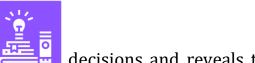
requires the playing players, jumping, rolling, falling and diving, which made it a game that requires special physical abilities that need to be available to the player Which works to improve the level of its skill and planning performance, "the player cannot fully understand and implement plans with high physical abilities" (Akram Zaki: 1996), so focus should be on developing physical qualities that are consistent with the nature of activity or skill because they are necessary to master the skills The movement that achieves the ultimate goal of the learning and training process is the achievement, and (Muhammad Subhi Hassani & Hamdi Abdel Moneim) knew the physical capabilities of volleyball as "the body's ability to adapt to training with intensity, high density and the ability to return to the natural state quickly (Muhammad Subhi & Hamdi Abdel Moneim: 1988)Through the foregoing, the researcher can have her opinion in this field and know the physical capabilities of the volleyball game as the ability to perform motor skills efficiently, vitality and activity without the purification of fatigue and possessing additional energy to prepare for any emergency condition required by training or competition conditions, as it is the important rule Through which the player can move on the field to reach the ball or the right place. The player who has high physical capabilities has the ability to resist frustration and increases the desire to learn and train, exert effort and perseverance and achieve an appropriate level of psychological stability, which enables it to perform the motor skills well and is the basis for reaching the highest levels of sports, so directing the player to the game Which is compatible with its physical capabilities leads to the economy in the training process, investing a lot of time, effort, money, and scientific contribution to investing capabilities and directing them towards the ladder of development to the level of athlete.

Therefore, the physical capabilities of the volleyball game are one of the main pillars to reach high levels, and the development of these capabilities for the volleyball player is an essential element for developing physical efficiency and functional and motor ability for them.

# 3- Research Methodology and Field Procedures

### 3-1 Research Curriculum:

The curriculum is (the scientific path that the researcher takes in solving the problem of his research. The nature of the problem imposes a specific approach to reaching the truth) (Nuri Ibrahim & Rafeh Saleh: 2004). The survey (provides the researcher with information that enables him to analyze, interpret and take



decisions and reveals to him the relationships between the thoughts studied) (Wajih Mahjoub: 2005).

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### 3-2 Research Community & Sample:

The research community represents the players of specialized schools in volleyball in Iraq for the sports season 2021/2022. The research sample was chosen in the intentional way and they are players of the specialized school in Abi Al -Khaseeb.

### 3-3 Devices, tools and Means of Collecting Information

- -Arab and foreign sources and references
- Tests and measurement
- Medical balls
- Measurement tapes

Volleyball stadium

- Whistle
- Iron bar and weights
- stop watch.
- -Data Register form

# 3-4 Organizational Research Procedures:

By reviewing the sources and references for tests and measurement, 41 physical tests were identified and these tests represent the various physical capabilities and in order to complete obtaining the most important tests and measurements, the researchers used the global analysis in order to obtain the most accurate tests and measurements that suit the research sample

# 3-5 Main Experience:

After the physical tests were identified, the research sample was reported on the date of conducting the tests for the period from 10-18/5/2022, as five tests were conducted a day except for the last day, 6 tests were conducted. The researchers took into account the sequence of tests in terms of distress and difficulty as well as giving a period Suitable rest between the tests

### 3-6 Statistical Means:

Researchers used the SPSS statistical bag version 2.



### 4- Presenting, Analyzing and Discussing Results:

After completing the collection of data, it was statistically treated by appropriate means, we will present in this chapter the analysis of the results in two phases, the first stage includes what relates to the workforce analysis of the variables (physical, skill, functional and physical), while the second stage includes what relates to standard degrees and logistical forecasting with the resulting manufacturing construction of variables.

## 4 - 1 Statistical description of the candidate physical variables

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It is clear from Table (1) that all the values of kurtosis range between  $(\pm 3)$ , and this indicates that the variables are characterized by moderation. "The data tends to moderate distribution, meaning that the test has the ability to show the differences between groups when the sprain extends from (-3) (In the negative to kurtosis (+3) in the positive kurtosis "(Mustafa Hussein: 1999).

Table (1) Shows mathematical medium, standard deviation, and kurtosis for physical tests

No	Test	unit of measure	Variable symbol	mathematical medium	standard deviation	kurtosis
1	Push medical ball (2 kg)	meter	X 1	4.8787	.79529	171
2	Push medical ball (3 kg) with hands	meter	X 2	3.4493	.68229	297
3	wide jump of stability	meter	Х3	15062.	.33755	509
4	vertical jump of stability	cm	X 4	20.6000	5.01591	027
5	Sitting from the slavery in (20) seconds	Repetitions	5X	11.2167	1.64772	454
6	Sitting from the numbers for 15 seconds	Repetitions	X 6	12.6667	1.34878	046
7	Bending and extending the two men during 15 abundances	Repetitions	X 7	18.3833	2.05922	.088
8	Bend the arms and extend them constantly for 15 seconds	Kg	X 8	14.1833	2.85522	.582
9	Hamstrings with maximum weight	second	X 9	32.3333	5.40454	453
10	Attachment from putting arms bending	second	X 10	31.8723	6.56132	099
11	Attachment from the stretching of the arms	second	X 11	35.9577	5.61653	475
12	Bend the arms from the inclined flatness	Repetitions	X 12	20.4500	3.08866	.021
13	Lifting the two legs high	second	X 13	25.1623	4.84211	006
14	Run 400 meters	second	X 14	148.7805	25.66572	.063
15	Ran 150 meters	second	X 15	103.6577	18.44137	.0501

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16	30 meters of standing ran	second	X 16	47.8271	7.65324	.9341-
17	Run 20 meters from the high start	second	X 17	.58584	1.21771	.624
18	30 meters from a moving start	second	X 18	3.6131	1.43114	.378
19	Running shuttle or cubes transfer race (9 x 4) m	second	X 19	3.8858	.86374	.045
20	Nelson's reaction and arm	cm	X 20	31.6663	5.18493	260
21	Nelson reaction to the toes	cm	X 21	9.5167	3.18094	021
22	Nelson for transitional kinetic response	second	X 22	16.7000	6.36010	.095
23	side step (10) seconds	Repetitions	X 23	4.4570	.78670	.274
24	Long jump forth (10) seconds	Repetitions	X 24	10.5000	1.69246	.054
25	Zig – zag ran paro way	second	X 25	17.6167	1.67829	009
26	Running (8) way	second	X 26	8.9677	1.31304	.773
27	Running around a circle	second	X 27	14.0588	2.10217	087
28	Bend the stem from standing	cm	X 28	2.3667	1.61000	255
29	Bend the stem forward from the sitting position long	cm	X 29	6.7333	1.58239	047
30	Ending the tide of the stem from the lying down position	cm	X 30	7.5667	1.59837	.699
31	Bend the stem to succeed standing	cm	X 31	16.1610	2.80788	.696
32	Lower and side touch	Repetitions	X 32	12.3333	.328332	.4651
33	Standing on the bench		X 33	32.0000	8.93669	.895
34	Standing with the foot is long on the crossbar	second	X 34	141.1940	33.33996	135
35	Standing with the foot is browsing on the crossbar	second	X 35	42.2673	8.11229	204
36	Standing with feet long on crossbar	second	X 36	24.0103	5.60821	.233
37	Standing with the feet browsers on the crossbar	second	X 37	79.8941	18.46583	200
38	Throwing the ball and receiving it	Repetitions	X 38	66.6662	14.30627	398
39	Numbered circles	second	X 39	10.3667	1.83161	088
40	Rope	Repetitions	X 40	11.1435	2.20965	266
41	Push medical ball (2 kg)	meter	X 41	3.4000	1.16735	180

### 4 - 1 - 1 Matrix interconnection for physical variables:

The first step that the general analysis begins is the calculation of the correlation transactions between the variables and their recording in a matrix suitable for this type of analysis (Abdel -Gawad Mansi: 1989), and raw grades were used to obtain the interconnections of the variables by the simple link equation, and since the number of members of the sample included. By studying (60) players, the correlation coefficient becomes moral if its value is equal or exceeds (0.325) at a

moral level (0.01), and there is a moral significance if its value is equal or exceeds (0.250) at a moral level (0.05) ( Wadih Yassin: 1999), and Table (12) represents the connection matrix between used measurements, as we notice the following: The correlation matrix (820) correlation laboratories (the Qatari cells were not counted) included (414), a percentage of percentage (50.48%) and (406) a negative correlation with a percentage of (49.51%), while the links indicated morally at the level of (0.01) (51) And a percentage (6.21%), and the correlation transactions indicated morally at the level of (0.05) (120) and a percentage (14.63%), while the non-moral links reached (700) and its percentage (85.36%), and the positive and non-significant ties

Reached (340) and a percentage (48.57%), and negative, non -significantly indicative connections (360) and a percentage (51.41%) table (2) Matrix of interconnection for physical variables.

1111	LCI	C	,,,	110		u	111	10	1	hii	y	oic	aı	V	aı	ıaı	UI	U.S.	•																						
41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
240	.038	223	.215	.138	158	100	148	002	.063	012	.007	.049	082	133	.028	.185	.052	.048	285	178	067	.048	061	016	.100	.039	.229	227	.129	162	106	061	163	209	.296	331	229	046	.045	П	1
299	.100	045	.066	140	125	227	043	127	.331	.025	134	.050	076	.157	502	111	110	126	443	143	205	.260	.063	.136	.138	.069	.346	141	170	002	.076	.153	.072	.048	.307	.008	.139	108	П	П	2
.093	216	.207	079	.031	181	038	.028	.220	220	.295	044	.252	149	065	.038	.202	.441	.466	.340	.339	145	048	286	031	066	033	064	.068	.072	.136	.142	121	.116	.048	126	062	029	П	П	П	3
148	096	.110	.073	092	.166	042	.046	.042	241	147	054	.063	088	067	046	033	064	013	039	.025	.025	079	.016	.033	144	.054	.014	.251	.085	053	126	.216	.152	.059	.038	.065		П	П	П	4
.061	011	043	024	.057	.108	069	.069	.026	.033	.169	.168	015	.216	.041	.159	127	.159	.136	.129	.036	101	030	089	123	208	.100	246	.117	.059	.075	.116	111	.050	.052	031	П		П	П	П	5
315	.083	280	054	.035	135	.004	024	039	140	266	.074	.076	.025	.143	128	.083	339	323	291	168	.131	.085	.272	.338	.478	.239	.358	.042	147	104	.065	.146	025	256					П	П	6
.088	227	.062	035	020	.035	054	051	089	.175	.160	040	.017	080	029	102	232	.023	002	.014	.059	.035	187	060	119	285	059	103	149	007	.164	070	.161	.010			П		П	П	П	7
157	077	.104	072	012	093	161	114	088	.086	.025	156	.105	.186	037	120	006	110	004	.091	222	169	.004	039	.191	120	033	.092	125	038	.069	.091	009				П			П	П	8
165	281	064	033	115	.190	032	.070	.152	090	.028	007	185	073	.087	373	.039	284	327	409	.030	.269	030	.129	.208	.080	008	032	013	091	.113	170					П		П	П	П	9
048	122	.010	068	168	.090	.033	200	.106	218	101	125	.000	027	.180	162	.018	080	093	.017	.125	.073	.275	.106	.261	.147	.058	014	007	170	.048										П	10
.093	109	.305	088	060	.164	124	066	.042	.028	.277	.078	174	.279	.001	.094	026	.096	.179	.183	.236	.062	059	122	.188	075	203	.037	.104	.091											П	11
.029	.060	.263	.096	.127	.091	220	.186	.146	140	005	.164	072	033	330	.370	.279	.379	.271	.114	.160	045	.090	220	065	286	.119	057	.097								П		П	П	П	12
.081	028	.149	133	.126	.122	011	.249	.441	266	116	.222	056	.049	075	.363	.291	.110	.198	.253	.115	015	360	081	.131	.139	.131	.186									П			П	П	13
087	.139	$\overline{}$	$\overline{}$	161	_	201	134	.066	.010	049	075				025		279	178	306	364	076	147	.105	.335	.280	158						$\neg$					Г		$\Box$	П	14
009	168	139	.055	.231	071	.100	.135	.027	.019	041	.004	.071	037	033	029	.308	005	.009	.040	.073	.120	.057	133	006	.215															П	15
150	.169	223	205	107	.061	.358	.005	.092	258	118	102	.094	.053	.266	087	.157	458	399	133	144	.068	.050	.381	.470														П	П	П	16
375	162	018	240	225	.084	.010	017	069	295	191	125	108	.050	.330	172	084	504	470	226	094	.267	.003	.322													П		П	П	П	17
211	003	209	063	093	.011	.121	147	063	224	552	024	.158	.057	.173	203	054	551	606	201	208	.261	012																	П	П	18
079	006	.112	.143	.030	305	092	017	149	.082	.196	069	.098	092	.115	096	181	.197	.115	015	053	.175								П										П	П	19
152	248	016	284	075	009	115	111	089	245	091	196	030	022	.257	197	181	179	275	133	.069																		П	П	П	20
.160	295	.135	.081	.013	.148	.053	101	.152	113	007	.077	.090	095	053	007	.194	.345	.270	.284																				П	П	21
.367	024	.318	.084	.249	145	.033	.189	.049	017	.235	.180	008	.265	167	.525	.031	.446	.494																							22
.280	129	.387	.142	.239	140	202	.109	.221	.191	.454	.287	006	077	287	.321	.209	.915																						П		23
.297	092	.383	.187	.154	120	181	.129	.214	.189	.420	.165	058	086	304	.292	.159																									24
.091	110	.162	.145	.248	.210	.084	047	.393	239	.057	.222	.058	146	201	.154																								П		25
.264	.199	.154	.152	.266	.089	.092	.165	.227	167	.113	.429	180	.024	300																									П		26
407	304	.010	023	120	163	.016	146	183	056	.030	228	.037	270																										П		27
.253	.203	101	128	009	.089	068	.307	170	.287	.004	019	112																										П			28
030	088	028	.016	.121	235	.087	091	018	180	060	117																												П		29
.179	.040	.165	.001	.465	012	085	.170	.228	093	044								- 1																					П	П	30
.229	.050	.234	035	.092	074	026	.011	.087	.258																																31
.130	.012	144	.146	066	008	232	.088	245																																	32
.060	047	.298	.096	.094	.270	.132	.163																																		33
.078	.140	.068	.102	003	.066	028																																			34
.186	.149	110	.212	.063	.091																																				35
.174	012	008	.174	477																																					36
.019	.032	.223	029																																						37
.084	219	.083																																							38
.171	111																																								39
.226																																									40
																																								П	41
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# Table (3) Show the values of Current roots, the proportion of contrast and the collected contrast

Factors	Current root values	percentage of contrast	Cariousness & society
1	6.529	15.924	15.924
2	3.203	7.813	23.737
3	2.707	6.603	30.340
4	2.5.2	6.102	36.442
5	2.173	5.300	41.742
6	2.042	4.981	46.723
7	1.842	4.491	51.215
8	1.639	3.999	55.213
9	1.589	3.875	59.089
10	1.412	3.445	62.533
11	1.312	3.199	65.732
12	1.252	3.053	86.785
13	1.201	2.928	71.713
14	1.128	2.752	74.466
15	.992	2.419	76.884
16	.932	2.273	79.157
17	.913	2.228	81.385
18	.859	2.095	83.481
19	.822	2.004	85.485
20	.709	1.728	87.213
21	.625	1.533	88.746
22	.550	1.341	90.087
23	.462	1.126	91.212
24	.451	1.100	92.313
25	.418	1.021	93.333
26	.369	.900	94.234
27	.360	.878	95.112
28	.301	.733	95.845
29	.286	.699	96.544
30	.252	.615	97.158
31	.218	.532	97.690
32	.185	.452	98.142
33	.162	.395	98.537
34	.152	.371	98.908



35	.142	.347	99.255
36	.107	.260	99.514
37	.061	.149	99.663
38	.058	.141	99.804
39	.040	.099	99.902
40	.024	.058	99.960
41	.016	.040	100.000

### 4 - 1 - 2 Matrix Factors Before Rotation:

In this study, the researchers used the basic components of a Hotbellkh correct one (Raad Sabri: 1987) The global analysis has concluded fourteen workers, which are direct results of the analysis, and that (direct solutions that we reach from analysis to another leads us to certain factors that may differ the used method) (Safwat Faraj: 1980 )Table (4) shows the factors matrix before rotation

14	13	12	11	10	9	8	7	6	5	4	3	2	1	
.036	.107	.075	.061	290	.228	275	.073	093	.107	.546	463	.020	126	1
.144	204	.036	131	.121	047	.397	.024	.184	.386	.313	054	307	410	2
.080	006	103	.279	.005	077	.045	.249	.283	160	.371	.361	.050	.411	3
020	.043	187	.097	.112	528	.208	287	153	.306	047	.255	.125	028	4
271	294	.007	391	058	028	.425	236	.097	035	297	.077	084	.220	5
.130	095	.060	009	104	.175	.219	154	.199	.078	.237	236	.356	480	6
.047	120	.194	.105	.297	030	058	109	181	.041	117	.317	384	.068	7
329	.307	.333	.179	100	450	.142	079	.421	.071	.011	.129	197	072	8
029	.062	.125	.251	.312	.267	.038	179	315	.417	032	.346	.050	337	9
229	223	.089	280	328	015	.164	.314	.219	218	.011	.331	.145	144	10
.091	.021	.334	.012	018	.281	170	.090	.353	.267	243	.384	060	.201	11
253	.054	095	.129	325	078	228	245	102	.321	.104	067	.152	.416	12
.167	089	227	057	.103	044	.170	126	.207	.234	134	.092	.595	.280	13
.191	103	004	019	.055	163	170	.243	.398	.444	.204	190	.163	344	14
269	.048	028	.194	141	.260	.583	231	143	115	.221	075	.240	.019	15
.071	.087	050	.078	.127	.258	.186	.296	.238	130	.001	130	.525	479	16
036	.235	.024	022	141	.108	072	012	.383	.140	086	.306	.339	543	17
.269	079	.273	048	026	185	122	106	075	209	204	004	.312	564	18
213	.028	029	.006	.101	.030	033	.032	003	.088	.104	068	296	856	19
.012	055	210	.188	135	.338	269	309	093	166	107	.411	.126	288	20
.181	248	.086	.104	214	.155	.099	.114	245	144	.070	.475	.131	.390	21
.149	.241	.035	.009	067	041	.064	029	.273	354	227	.062	.081	.685	22
.082	042	090	053	041	.044	.060	.029	.150	.077	.307	.029	165	.840	23
.060	071	186	036	121	.081	.026	.041	.007	.059	.277	.048	213	.821	24
201	013	.287	.162	050	.065	.108	.176	106	.195	.369	053	.530	.274	25

<sup>\*</sup> Total values of Current total roots = 41

<sup>\*</sup> Total values Current roots for accepted factors = 30,531

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-	079	.163	053	255	029	032	246	057	.076	008	207	311	.359	.584	26
	.104	.224	162	464	.130	.182	.060	036	.130	232	.148	.390	046	436	27
	.119	.089	.238	.305	260	.144	.224	075	.321	.021	590	222	108	.060	28
	.245	160	.080	.289	.096	413	.153	.046	.065	362	.353	.031	.070	056	29
	.092	237	.334	268	.191	.128	082	351	.011	.118	025	232	.316	.384	30
	248	.112	091	.037	.356	.362	.052	.240	.260	.095	.126	.094	362	.395	31
5	.203	.042	.144	045	072	.223	.257	.051	.006	.194	059	284	690	.062	32
org	036	062	002	060	.222	.007	.064	.204	077	.308	.117	.129	.515	.321	33
academiascience	.268	.312	332	.140	.057	.091	.329	209	.010	.223	278	190	.118	.232	34
Cle	150	.242	.059	003	.358	.010	.157	.403	302	396	154	110	.306	061	35
	094	067	.063	056	181	030	.051	.405	331	.485	426	.161	.215	.008	36
len	119	.003	.329	008	.311	.121	026	479	.101	265	.285	262	.177	.331	37
	.217	.445	.228	320	139	149	.203	.193	484	.110	.177	121	044	.195	38
	002	.204	.105	113	.241	117	194	035	.214	.183	.095	.336	.064	.452	29
:u)e	186	208	238	.076	.191	102	110	.183	.213	.024	284	641	.009	025	40
serchjet.	.055	191	.125	.209	.152	.051	.015	.340	080	095	372	160	042	.502	41

It is noted from this table that the number of extracted factors, which is based on Current roots, which exceed the correct one is (14) workers.

# 4 - 1 - 3 Matrix Factors after perpendicular recycling of the Results of Tests:

The perpendicular recycling is the most used type of recycling in physical education research, as the axis recycling leads to retaining an angle of (90) degrees between the two axes, and since the existing angle pocket is equal to zero, this means that the relationship between two perpendicular workers is a zero relationship. This means that the factors are extracted with this method of recycling, independent factors or non -intertwined classification categories "(Muhammad Sobhi: 1987). The process of recycling is defined as "recycling the axes about the original data so that the saturation of each variable is only the highest as possible and this rotation makes each worker characterized by the presence of a number of variables characterized by high saturation, which facilitates the development of clear designations for him (Samira Kazem: 1980). For the purpose of reaching the simple global construction of the interpretation of the contrast, the recycling of the factors extracted with the use of perpendicular recycling in the manner proposed by Kaiser in order to raise the value of large stuffs and reduce the value of small saturated through the dimensions of unnecessary axes to reach the best solution and remove the ambiguity that permeates the first analysis and as shown In Table (5).



### 4 - 1 - 4 Conditions for Accepting Physical Factors:

The researcher explained the factors extracted according to the following conditions:-

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use the Henry Kaiser to analyze the indicative factors on the basis that the factors indicating the factor that equals its inherent root is one correct at least and above.-. The worker who is satisfied with tests is accepted at least, according to Gilford's Motion  $(\pm 0.3)$  (Thaer Dawood: 1995)

- The worker explains the saturated or more than (± 0.3) (Safwat Faraj: 1980).

### 4-1-5 Interpretation and Name of physical factors

### 4-1-5-1 Interpretation and Name of First Factor:

When looking at Table (5) we find that there are eleven tests that were saturated with the first factor with more than  $(0.3 \pm)$ , achieving (26.82 %), and since the number of tests saturated with the first factor is more than three tests, this worker was accepted as shown in the table (17) Table (5) shows the factors matrix after recycling



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### -.718 -.025 -.092 -.184 .203 .082 .149 .216 -.170 -.091 .130 .202 .005 1 - 137 -.142 .832 -.118 .098 .094 -.153 .031 2 -.085 .046 -.031 .055 -.086 .043 -.099 .148 -.032 -.037 -.443 -.151 -.109 .119 .043 .347 -.093 -.017 -.076 .230 .500 3 .168 .258 .003 -.267 .095 .291 -.308 -.351 -.135 -.182 -.128 .024 .308 -.154 4 .875 -.030 .177 -.188 .133 -.093 .019 .137 .034 -.037 5 .166 .004 .049 .086 .347 .417 -.069 .003 -.153 .187 .170 .128 .484 .067 -.328 -.387 -.015 .156 6 7 .009 -.091 -.232 -.771 .161 .132 .046 -.191 .007 .096 -.031 .084 -.045 .113 .013 -.079 -.001 -.120 .028 -.111 -.012 .349 -.073 -.044 -.772 .057 -.092 .016 8 .082 - 006 - 369 220 - 095 298 .195 .043 084 -.066 - 124 .132 338 367 9 .123 -.195 .102 .045 -.102 .772 .168 .175 .281 -.246 -.139 .065 .117 .074 10 .278 .020 .334 .389 -.208 .017 .161 .070 .465 .066 .100 .472 .074 -.387 11 .053 .001 -.778 -.084 .255 .074 .128 .161 -.156 -.021 .064 .108 .206 .160 12 -.077 -.449 -.021 -.008 -.168 .217 .358 -.042 .093 .114 -.008 .043 .315 -.016 13 -.539 .275 .119 -.010 -.012 -.010 -.117 -.266 .023 -.195 -.093 -.010 .018 -.145 14 -.047 .854 .075 .022 .112 -.042 .008 .067 -.012 .036 -.046 .002 15 .071 .043 -.004 .099 .224 .440 -.231 -.224 .195 .092 -.068 -.474 .323 .180 .403 -.098 16 -.167 .049 -.022 .248 -.062 -.134 .062 .177 .116 -.191 .175 .378 -.593 -.050 17 -.113 -.004 -.061 -.133 -.043 -.026 -.009 .182 .061 .059 -.069 .023 .731 .04 18 .092 -.269 .063 19 .101 .796 .089 -.124 -.158 -.275 .165 -.069 -.291 -.030 .092 -.192 .015 .091 .106 -.036 -.098 -.217 -.640 .251 -.109 .118 -.257 -.097 -.246 20 -.237 -.106 .096 -.139 .012 .112 -.059 -.064 -.648 -.080 .432 -.196 .177 .153 21 .189 -.033 -.136 -.111 .037 .183 -.125 .299 .229 -.005 .003 -.181 22 .076 .674 23 .104 -.349 .389 .148 .073 .212 .220 .128 -.030 .113 .120 - 062 -.268 .465 .076 .833 -.092 .151 .039 .183 -.013 .246 .107 -.102 .056 .016 24 -.181 .131 .101 -.168 -.303 -.008 .155 -.312 .039 -.019 .158 .183 .204 .596 .185 .092 25 .118 .025 -.048 -.024 -.046 .436 -.164 .240 -.138 -.141 .067 .155 .014 .130 26 .042 -.023 .725 -.017 27 -.062 -.069 -.084 .119 -.003 -.108 .091 .086 -.133 -.067 -.021 .080 .062 .262 -.168 .102 .156 .641 .170 .008 -.172 -.400 .093 -.149 28 .076 -.078 .034 -.063 .006 -.061 .040 .632 .089 .045 .053 .079 .011 -.309 29 .354 .056 -.079 .172 -.333 .134 .049 -.125 .072 -.073 -.413 .039 .271 -.375 30 31 .093 -.030 -.046 .174 -.101 .03 -.141 .236 -.056 .053 .026 .021 -.036 -.800 .212 .018 -.074 .015 -.011 .151 .358 .290 .033 -.007 .235 .149 .608 .286 32 .034 .043 .429 .052 .078 .342 .076 -.402 315 .158 33 -.097 .004 .098 .008 .059 -.279 .130 .090 .010 -.020 -.402 -.024 -.332 -.304 34 -.050 .069 .068 .367 35 -.070 -.074 .157 -.081 .249 .02 -.045 .100 .675 -.058 .092 .016 .196 -.109 -.051 .329 -.063 .024 .212 .137 .364 -.038 .115 -.087 -.105 -.461 .262 .314 36 -.021 .026 -.043 -.012 -.003 .039 .068 .191 -.146 -.066 .102 -.004 .146 .754 37 .049 -.032 -.033 .069 .039 .053 -.118 .026 -.323 .122 -.053 -.056 .030 .742 38 .256 .054 .123 .009 .897 .038 -.094 -.097 .152 .212 -.147 -.140 .162 -.162 39 -.091 .064 -.096 .058 -.215 .010 .274 .114 -.206 .004 .118 .068 -.012 .804 40 -.122 .060 -.147 .010 -.514 .117 .017 .200 .076 .027 -.321 -.239 .044 .239 41

# Table (6) Shows physical Tests and Saturation with first factor

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No	Test number	Test	saturation
1	3	The long jump of stability	500.0
2	9	Hamstrings with maximum weight	367.0
3	11	Attachment from the stretching of the arms	-0.387
4	29	Bend the stem from standing	-0.309
5	30	Bend the stem forward from the long sitting position	-0.375
6	31	Extension of the trunk from lying down	-0.800
7	34	Standing on the bench	-0.304
8	36	Standing with the foot is browsing on the crossbar	314.0
9	37	Standing with the feet long on the crossbar	754.0
10	38	Standing with the feet browsers on the crossbar	742.0
11	40	Numbered circles	809.0

From table above and in order to represent this factor in a test, the test of the numbered departments was approved, as it obtained the highest saturation and reached (0.809), so this worker can be named after the corresponding eyes of the eyes and the two legs.

## 4 - 1 - 5 - 2 Interpretation and Name of Second Factor:

When looking at Table (5), we find that there are ten tests that were saturated with the second worker, with more than  $(0.3 \pm)$ , achieving a percentage (24.39 %). Since the number of tests saturated with the second worker is more than three tests, this worker is accepted as shown in the table (7).

Table (7) Shows physical tests and their saturation in the second factor

No	Test number	Test	saturation
1	4	The vertical jump of stability	0.308
2	6	Sitting from the numbers for (15) seconds	-0.328
3	9	Hamstrings with maximum weight	338.0
4	16	(150) meters	403.0
5	17	(30) meters of standing	-0593



6	18	(20) meters from the high start	731.0
7	26	Running	0.616
8	32	Running zig -zag	608.0
9	33	Bend the stem to succeed	315.0
10	34	Lower and side touch	-0.332
11	4	Standing on the bench	0.308

From table above, and in order to represent this worker in a test, the ray test (20) m from the high start was approved, as it obtained the highest saturation and reached (0.731), so this factor can be named the transitional speed factor.

### 4 - 1 - 5 - 3 Interpretation of third factor and name:

When looking at Table (5) we find that there are eight tests that were saturated with the third worker, which exceeds  $(0.3 \pm)$ , achieving (19.51 %), and since the number of tests saturated with the third factor is more than three tests, so this factor is accepted as shown in the table (8).

Table (8) Shows physical tests and their saturation with the third factor

No	Test number	Test	saturation
1	2	Push medical ball (3) kg with hands	832.0
2	11	Attachment from the stretching of the arms	472.0
3	17	(30) meters of standing	0.378
4	25	Quartet (10) seconds	596.0
5	28	Running the circle	-0.400
6	33	Lower and side touch	-0.402
7	34	Standing on the bench	367.0
8	36	Standing with the broken foot on the crossbar	-0.461
9	2	push medical ball (3) kg with hands	832.0
10	11	Attachment from the stretching of the arms	472.0
11	17	(30) meters of standing	0.378

From table above in order to represent this worker in a test, the test of the payment of medical ball (3) kg adopted with hands from where he got the highest

saturation and reached (0.832), and thus this factor can be named the explosive force factor of the arms and shoulders.

### 4 - 1 - 5 - 4 Interpretation and name of fourth factor:

When looking at Table (5) we find that there are seven tests that were saturated with the fourth worker with more than  $(0.3 \pm)$ , achieving a percentage of (17.07%), and since the number of tests saturated with the fourth worker is more than three tests, so before this worker as shown in the table (9).

Table (9) shows physical tests and their saturation with the fourth factor

No	Test number	Test	saturation
1	6	Sitting from the slavery within (15) seconds	484.0
2	8	Bend the arms and extend them constantly for (15) seconds	-0.772
3	16	(150) meters	323.0
4	21	Nelson's reaction and arm	432.0
5	22	Nelson's reaction to the toes	674.0
6	30	Bend the torso to the imam from the long sitting position	-0.413
7	41	Rope	-0.321

From table above and in order to represent this worker in a test, the test of the arms bending and extending them continuously was adopted for 15 seconds, as it obtained the highest saturation and reached (0.772), so this factor can be named the factor of the force that is distinguished by the speed of the arms.

### 4 - 1 - 5 - 5 Interpretation and name of fifth factor:

When looking at Table (5) we find that there are four tests that were saturated with the fifth worker with more than  $(0.3 \pm)$ , achieving a percentage of) 9.75 %), and since the number of tests saturated with the fifth worker is more than three tests, so this worker accepts as shown in the table (10).



Table (10) shows physical tests and their saturation in the fifth factor

No	Test number	Test	saturation
1	15	Run (400) meters	854.0
2	16	Run (150) meters	-0.474
3	27	Running in the form of 8	725.0
4	33	Lower and side touch	342.0

From table above, and in order to represent this factor in a test, the rating test (400) meters was adopted, where he obtained the highest saturation and reached (0.854), and thus this factor can be called. With a force of power.

### 4 - 1 - 5- 6 Interpretation and name of sixth factor:

When looking at Table (5) we find that there are five tests that were saturated with the sixth worker with more than  $(0.3 \pm)$ , achieving a percentage of (12.19 %), and since the number of tests saturated with the sixth factor is more than three tests, so this factor is accepted as shown in the table (11).

Table (11) Shows physical tests and their saturation in the six factor

No	Test number	Test	saturation
1	3	The wide jump of stability	0.347
2	21	Nelson's reaction and arm	-0.648
3	23	Nelson for transitional kinetic response	465.0
4	34	Standing on the bench	-0.402
5	35	Standing with the foot is long on the crossbar	675.0

From table above and in order to represent this worker in a test, the feet standing tested was approved on the crossbar from where he got the highest saturation and reached (0.675), and thus this factor can be called the fixed balance factor.

## 4 - 1 - 5 - 7 Interpretation and name of seventh factor:

When looking at Table (5) we find that there are six tests that were saturated with the seventh worker, with more than  $(0.3 \pm)$ , achieving: (14.63 %), and since the number of tests saturated with the seventh factor is more than three tests, so this factor is accepted as shown in the table (12).



### Table (12) shows physical tests and their saturation in the seventh factor

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No	Test number	Test	saturation
1	4	The vertical jump of stability	-0.351
2	8	Bend and extend the arms constantly for (15) seconds	349.0
3	20	Running shuttle racing cubes (4 x 9) m	-0.640
4	28	Running the circle	641.0
5	29	Bend the stem from standing	632.0
6	38	Standing with the two shining feet on the crossbar	-0.332

From table above and in order to represent this worker with a test, the running test on the circle was approved, as it obtained the highest saturation and reached (0.641), and thus this worker can be called the agility factor.

### 4 - 1 - 5 - 8 Interpretation and name of the eighth factor:

When looking at Table (5) we find that there are six tests that were saturated with the eighth worker with more than  $(0.3 \pm)$ , achieving (14.63 %), and since the number of tests saturated with the eighth factor is more than three tests, so this factor is accepted as shown in the table (13).

Table (13) shows physical tests and their saturation in the eighth factor

No	Test number	Test	saturation
1	4	The vertical jump of stability	-0.308
2	12	The inclined to bend the arms	-0.778
3	13	Tension	358.0
4	14	Lifting the two men high	-0539
5	33	Lower and side touch	429.0
6	36	Standing with the broken foot on the crossbar	364.0

From table above, and in order to represent this worker in a test, the tested binding was approved by bending the arms in terms of obtaining the highest saturation and reached (-0.778), and thus this factor can be called the force of force to be in force for the arms.



# 4 - 1 - 5 - 9 Interpretation and name of ninth factor:

When looking at Table (5) we find that there are three tests that were saturated with the ninth worker, with more than  $(0.3 \pm)$ , achieving a percentage of (7.31 %), and since the number of tests that are saturated with the ninth factor is three tests, so this factor is accepted as shown in the table (14)

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Table (14) shows physical tests and their saturation in ninth factor

No	Test number	Test	saturation
1	1	Push medical ball (2) kg	-0.718
2	10	Attachment from putting the arms bending	772.0
3	25	Quartet (10) seconds	-0.313

From table above, and in order to represent this worker in a test, the attachment test was adopted from the status of the arms bending, as it obtained the highest saturation and reached ((0.772 and thus this worker can be named the force of the force of the arms.

### 4 - 1 - 5- 10 Interpretation and name of tenth factor:

When looking at Table (5) we find that there are three tests that were saturated with the tenth worker, with more than  $(0.3 \pm)$ , achieving a percentage of (7.31 %), and since the number of tests saturated with the tenth factor is three tests, so this worker accepts as shown in the table (15).

Table (15) shows physical tests and their saturation with the tenth factor

No	Test number	Test	saturation
1	30	Bend the stem to the front from the sitting position long	-0.333
2	39	Throwing and receiving the ball	897.0
3	41	Rope	-0.514

From table above and in order to represent this worker in a test, the test of throwing the ball and receiving it was approved in terms of obtaining the highest saturation and reached (0.897), and thus this worker can be named after the corresponding eyes and hands.



### 4 - 1 - 5 - 11 Interpretation and name of eleventh factor:

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When looking at Table (5) we find that there are four tests that were saturated with the eleventh worker, with more than  $(0.3 \pm)$ , achieving a percentage of (9.75 %), and since the number of tests saturated with the eleventh factor is more than three tests, so this factor is accepted as shown in the table (16).

Table (16) shows physical tests and their saturation with the eleventh factor

No	Test number	Test	saturation
1	3	The long jump of stability	-0.443
2	7	Bend the legs and extend them for (15) seconds	-0.771
3	16	(150) meters	440.0
4	23	Nelson for transitional kinetic response	389.0

In light of the foregoing, and in order to represent this worker in a test, the test of the two legs and their extension was approved within (15) seconds, where he obtained the highest saturation and reached (-0.771), and thus this factor can be called the strength of the speed of the speed of the two men.

## 4 - 1 - 5 - 12 Interpretation of twelfth factor and name:

When looking at Table (5) we find that there are six tests that were saturated with the twelfth worker, with more than  $(0.3 \pm)$ , achieving a percentage of (14.63 %), and since the number of tests saturated with the twelfth factor is more than three tests, so this factor is accepted as shown in the table (17).

Table (17) shows physical tests and their saturation in twelfth factor

No	Test number	Test	saturation
1	11	Attachment from the stretching of the arms	0.334
2	19	Hamstrings with maximum weight once	-0.369
3	23	Nelson for transitional kinetic response	-0.349
4	24	The side step (10) seconds	0.833
5	25	Quartet (10) seconds	-0.303
6	32	Bend the stem to succeed standing	0.358



From table above and in order to represent this worker in a test, the side step test was adopted (10) seconds, as he obtained the highest saturation and reached (0.833), and thus this worker can be called the agility factor.

### 4 - 1 - 5 - 13 Interpretation of the thirteenth factor and name:

When looking at Table (5) we find that there are five tests that were saturated with the thirteenth worker with more than  $(0.3 \pm)$ , achieving a percentage of (12.19 %), and since the number of tests saturated with the thirteenth factor is more than three tests, so this factor is accepted as shown in the table (18).

Table (18) shows physical tests and their satisfaction with the thirteenth factor

No	Test number	Test	saturation
1	6	Sitting from the slavery within (15) seconds	417.0
2	13	Tension	-0.449
3	19	(30) meters from the moving start	796.0
4	26	Running zig-zag	436.0
5	36	Standing with the foot is browsing on the crossbar	329.0

From table above and in order to represent this worker in a test, the running test (30) meters was adopted from a moving start, where he obtained the highest saturation and reached (0.796), so this factor can be named the transitional speed factor. Fitness is characterized by the compound character due to its association with other physical qualities on the one hand and the art of performance on the other hand, and agility is defined as the ability to change the conditions of the body, its speed, or its directions on the ground or in the air accurately, smoothly and a correct timing (Majid Ali: 2009).

## 4 - 1 - 5- 14 Interpretation of the fourteenth factor and name:

When looking at Table (5) we find that there are three tests that were saturated with the fourteenth worker with more than  $(0.3 \pm)$ , achieving a percentage of (7.31 %), and since the number of tests saturated with the fourteenth worker is three tests, so this worker accepts as shown in the table (19).



Table (19) shows physical tests and their saturation with the fourteenth factor

No	Test number	Test	saturation
1	5	Sitting from the slavery in (20)	0.875
2	6	Sitting from the numbers for (15) seconds	347.0
3	30	Bend the torso to the imam from the long sitting position	354.0
11	5	Sitting from the slavery in (20)	0.875

In light of the foregoing, and in order to represent this worker with a test, the seating test of the slavery was adopted in (20) seconds, where he obtained the highest saturation and reached (0.875), and thus this factor can be named the strength of the speed of the stomach speed.

# 4 - 1 - 6 final physical tests from the global analysis Table (20) Shows the nominated physical tests from the global analysis

No	physical tests
1	Numbered circles
2	Run (20) from the high start
3	push medical ball (3) kg with hands
4	Bend the arms and constantly extend them within (15) seconds
5	Run (400) meters
6	Standing the foot long on the crossbar
7	Running around a circle
8	The inclined to bend the arms
9	Attachment from putting the arms bending
10	Throw and receive the ball
11	Bend the two men and extend them within (15) seconds
12	The side step (15) seconds
13	(30) meters from a moving start
14	Sitting from the slavery within (20) seconds



### 5 - Conclusions & Recommendations

### 5 - 1 Conclusions:

In light of the study carried out by the researchers, he was able to reach the following conclusions:-

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1- The correlation of the correlation of physical test variables has been analyzed, as (14) physical tests were reached for selection, which are:-

Test the numbered circles, which obtained saturation (. 809) to measure the consensus of the eyes and the two legs

- Righting test (20) m from the high start, which obtained saturation (. 731) to measure the transitional speed.
- Test of the pushing of the medical ball (3) kg, which obtained saturation (.832) to measure the explosive force of the arms.
- Test the arms bending and constantly extending them during (15) Sec, which obtained saturation (.
- Righting test (400) m, which obtained saturation (. 854) to measure the power table.
- Long standing test on the crossbar, which obtained a saturation (. 675) to measure the fixed balance.
- Running test around a circle that obtained saturation (. 641) to measure fitness.
- Test the arms bending from the oblique flattening, which obtained saturation (.
- Attachment test from the putting of the arms, which obtained a saturation (.772) to measure the force of the arms.
- Throwing and receiving the ball, which obtained saturation (. 897) to measure the consensus of the eye and the hand.
- Test the two men bending and extending them during (15) Sec which obtained saturation (.
- Step Test (10) Sec which obtained saturation (. 833) to measure fitness.
- Righting test (30) m from the moving start, which obtained saturation (. 796) to measure the transitional speed.
- Sitting from the slavery during (20) Sec which obtained saturation (. 875) to measure the strength of the stomach speed.

### 5-2 Recommendations:

- Using the tests extracted to evaluate and select the players
- Extracting standard degrees and levels of the candidate tests from the global analysis

- Conducting a similar study to other samples

### **References:**

1- Akram Zaki Khatiba; (1996) Modern Volleyball Encyclopedia, 1st floor: (Amman, Dar Al -Fikr for Printing, Publishing and Distribution, p. 256.

ISSN: 2776-0960

- 2- Muhammad Subhi Hassani & Hamdi Abdel Moneim; (1988) Scientific foundations for volleyball and methods of measurement and evaluation (physical, skill, cognitive, psychological, analytical), 1st floor: (Cairo, Al -Kitab Center for Publishing, p. 22.
- 3- Nuri Ibrahim Al-Shouk & Rafeh Saleh Fathi: (2004) The Researcher's Research Writing Directory in Physical Education, Baghdad, Al-Shuhad Press, p. 51.
- 4- Wajih Mahjoub (2005) Origins of Scientific Research and Critics, 2nd edition, Amman, Dar Al-Maarajah for Publishing and Distribution, p. 243.
- 5- Mustafa Hussein Bahi (1999) Applied Statistics in the field of educational, psychological, social and sports research, 1st edition, Cairo, Al-Kitab Publishing Center, , p. 83.
- 6- Wadih Yassin Al-Tikriti & Hassan Mohamed Al-Obaidi (1999) Statistical Applications and Computer Incards in Physical Education Research, Mosul, Dar Al-Kutub for Printing and Publishing, p. 435.
- 7- Abd al -Jawad Mansi : (1989) Statistics and Measurement in Education and Psychology, Cairo, University Knowledge House, p. 408.
- 8- Muhammad Subhi Hassanein: (1987) Methods of building and legalizing tests and standards in education for physical, 2nd edition, Cairo, Dar Al-Fikr Al-Arabi, p. 87.
- 9- Raad Sabri Musa & (et al.): (1987) Statistical methods, Baghdad, Ministry of Planning, Central Bureau of Statistics, Training and Statistical Research Center,, p. 250.
- 10- Safwat Faraj: (1980) The general analysis of behavioral sciences, Cairo, Dar Al-Fikr Al-Arabi, , p. 209.
- 11- Samira Kazem Al-Shamaa: (1980) Industry areas in Iraq, Baghdad, Dar Al-Rashid Publishing, , p. 35
- 12- Thaer Dawood Salman: (1995) Design and legalization of a test battery to measure the skill side of young basketball players with ages 17-18 years, PhD thesis, Faculty of Physical Education, Basra University, p. 59
- 13- Majid Ali Musa: (2009) Modern Sports Training, 1st edition, Al-Nakheel Press, Basra, 2009, pp. 135-136.