

Rationing the Cognitive Motivation Scale in Volleyball for Young Players Aged 17-19 Years

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Abstract

The purpose of this paper is to rationing the cognitive motivation scale on a sample of young volleyball players aged (17-19) years; the researchers used the descriptive approach using the survey method, because it fits the research problem. As for the research sample, scale forms were distributed to young players to know their cognitive motivation. The results of the scale that had been prepared were entered, the raw scores were entered into the (Spss) program and then standard scores and levels were determined to determine the degree and level of the players. The conclusions were reached, and the cognitive motivation scale, which was built for the first time by researchers on players, was reached. The researchers recommend that this scale should be used and applied to different players in order to identify the levels of cognitive motivation to enable them to reach the highest levels by knowing the levels of cognitive motivation among the teams.

Keywords: cognitive motivation, volleyball, young players.

Introduction:

The development of sports and their access to higher levels is associated with the contribution of all efforts made by the player and coach to get rid of the obstacles facing performance, as well as knowledge of the difficulties that lead to the failure to achieve higher levels in order to develop them by scientific methods and raise the level of the game in all its aspects to the best levels. Knowledge in specialized sports is one of the important pillars that every coach seeks to develop in order to improve the players' abilities, whose motives are related to trying to reach higher levels.

Cognitive motivation constitutes a condition of training as it provides the player with energy that increases his excitability to conduct a specific behavior. This is done by choosing the mentally beneficial response of the player to keep pace with the training process. Tests and measurements are among the necessary scientific tools in physical education because they play an important role in Proper planning and continuous improvement in performance, and cognitive motivation falls within the cognitive needs, meaning they need for understanding and knowledge, and this requires the presence of a strong internal desire and a tendency for the player to

search, exploration and reconnaissance in order to obtain information and increase it and benefit from it in a theoretical and practical way until the player achieves satisfaction and psychological satisfaction. And psychological satisfaction and satisfaction do not stop at a specific limit but are characterized by continuity and permanence, and this is directly reflected on the cognitive motivation, which means that the player continues to search and investigate to reach the cognitive facts.

Research problem:

As for the research problem, cognitive motivation is one of the psychological matters that plays an important role in the performance and application of playing duties, and the player must be familiar with the information to contribute to raising performance and diversifying thinking for the purpose of reaching the highest levels. For volleyball players, it is possible to determine their scientific ability, so the researcher considered studying this problem by rationing a measure of cognitive motivation on the players, hoping that this study will contribute to raising the level of performance of young players in the game of volleyball.

Research objective:

- Rationing the cognitive motivation scale in volleyball for young players aged 17-19 years

Research methodology and field procedures:

Research Methodology:

The descriptive approach was chosen in the survey method for its suitability to the nature of the problem, and the descriptive approach is known as: "The approach that depends on the study

of the phenomenon as it exists in reality and is concerned with describing it accurately through a qualitative expression that describes the phenomenon and explains its characteristics, or a quantitative expression that gives a numerical description that shows the amount and size of the phenomenon" (Bakr and Abu Awwad .2010)

Community and sample research:

The research community was chosen by the intentional method, which was represented by the volleyball players, who numbered (420) players, and the rationing sample numbered (185) players.

For the purpose of achieving the goal of the research, this requires evidence for measurement, and due to the lack of a measurement tool, the researchers built the scale to identify the cognitive motivation in volleyball:

- Honesty scale: Honesty is related to the scale's ability level and its success in measuring what it aims at and honesty is one of the scientific foundations that are indispensable in achieving the scale for what it was developed for.
- Stability scale: The stability of the scale was verified in the construction process when using the practical foundations (split half and Cronbach's alpha).
- Objectivity scale: Objectivity is related to the method of correcting the test more than it is related to the test itself. Hence, the objective test is the one in which a laboratory obtains the same score, no matter how different the graders differ.

Cognitive Motivation Scale:

The cognitive motivation scale that was built by the two researchers previously was used. The scale consisted of (50) items distributed over (6) domains (Appendix 1).

The first field is the wish of reading and the number of its paragraphs (5), which are: (1-2-3-4-5), and the second field is curiosity, and the number of its paragraphs is (8), which are: (6-7-8-9-10-

11-12- 13), the third field is asking questions and the number of its paragraphs is (7), which are: (14-15-16-17-18-19-20), and the fourth field is information analysis, and the number of its paragraphs is (7), which are: (21-22-23-24- 25-26-27), the fifth field challenges and the number of its paragraphs (14), which are: (28-29-30-31-32-33-34-35-36-37-38-39-40-41) and the sixth field is schematic information and the number of Paragraphs (9): (42-43-44-45-46-47-48-49-50) as shown in Table (1)

Table (1) Motivation Scale Paragraphs

No.	Paragraphs
1	I am pleased to see the technical performance of the smash hit and defend the field
2	I want to see the offensive and defensive moves in volleyball because it makes me think about the right behavior
3	Compound exercises for defense and attack in volleyball make me follow and watch the matches of the international teams to benefit from them
4	I have readings of the free defender's movements
5	I would like to get scientific sources on the movements of the attacking player in volleyball
6	I find that I am interested in searching for new information in the game of volleyball
7	I like to develop my knowledge about ace and ace to improve my cognitive side
8	I find it fun to know the outstanding teams in volleyball performance
9	I would like to share the prepared player with his schematic information to develop my information
10	I like to see modern equipment in volleyball training
11	I want to follow the latest complex exercises for defense and attack in volleyball to develop my mental abilities
12	Knowing the best player in the service underestimates me and adds new ideas to me
13	I follow legal changes in volleyball to increase my knowledge
14	I seek to ask questions about defensive and offensive tactics in volleyball to develop my knowledge
15	Everything new in volleyball from knowledge increases my interest in more questions
16	I seek scientific explanations for many questions about performance
17	I have a lot of questions in the field of tactical and legal performance in volleyball that need clarification
18	Compound exercises in volleyball raise a lot of questions for me
19	The questions that are asked during volleyball training, I try to find the appropriate answer to them
20	Questions in the field of science related to the performance of volleyball skills develop scientific and practical ability
21	Compound exercises in volleyball in the presence of a competitor increase my ability to analyze for the correct behavior
22	I feel that the performance of my teammates motivates me to think to tackle difficult situations of crushing beating
23	Various discussions of tactical tactics during training increase my ability to think and analyze
24	Watching volleyball matches improves my ability to think and analyze performance
25	The accuracy of my perception helps me to overcome difficult offensive and defensive exercises in volleyball
26	Analyzing the information enables me to arrive at the correct solution to the motor duty in

	volleyball
27	The opposing team's strong attack makes me choose the right defensive formation to build a counterattack based on my mental processes
28	I enjoy training in volleyball as much as I can because it increases my ability to visualize and analyze movements
29	I love the new and complex exercises in volleyball training because they develop my mental and motor processes
30	Playing with a strong opponent makes me think of fast and sudden movements in volleyball and develops my quick awareness
31	I like to perform the skill of smashing with an opponent because it is more interesting for me and develops my cognitive abilities
32	Enjoy the implementation of the skills of reception and smash hit in succession because it requires accurate and good awareness
33	I want to do a physical and skill exercise because it makes me think about the right performance
34	The opponent's strong serve increases my motivation for successful reception
35	The poor reception of my team pushes me to make an effort to implement a successful preparation based on experience and correct awareness
36	Feel the challenge when places are identified for skill accuracy in volleyball
37	Good preparation for the opponent makes me do my best to implement a successful wall
38	Challenging skill exercises make me feel challenged to perform them successfully
39	A strong opponent makes me do my best thinking to implement correct volleyball skills
40	Critical moments make me take a decisive decision to perform a successful attack on the opposing team
41	The use of tests that link the theoretical side to the practical in volleyball increases my motivation towards training and increases my cognitive reserve
42	I want to take on the responsibility of tackling difficult defending situations that require quick thinking in volleyball
43	I prefer watching the tactical applications of international teams to develop my ability to think correctly in volleyball
44	Knowing more modern tactics in volleyball increases my motivation towards better performance
45	Having a lot of information makes me find alternative solutions when facing different playing situations in volleyball
46	I try my best to know the defensive strategy used by the opposing team to choose the appropriate offensive tactic
47	The schematic forms develop my tactical information and cognitive abilities in dealing with playing situations
48	Successful performance of tactical applications increases my interaction with my team members
49	I'm trying to figure out what kind of attack my team is using to get the right coverage at the right time
50	I try to understand the tactics of the prepared player on the opposing team, I do not behave correctly

Rationing Scale: In order to complement the goal of the research, the researcher applied the scale to the rationing sample,

and the process of rationing the scale is very important as it makes the scale ready for use in different situations, times and

places. This, of course, requires unifying the procedures for applying and correcting the scale” (Hatab and et al.,2008).

Applicationscale: The researcher, with the help of the assistant work team, applied the scale consisting of (50) paragraphs to the Rationing sample of (185) players, and the response time ranged between (9-16) minutes.

Scale correction: the researcher put a scale of (five alternatives) in front of each paragraph (applies to me always, applies to me sometimes, applies to me often, applies to me rarely, never applies to me), and ranks the scale from (5-1) according to a scale (Likert), to be a key to correct the

alternatives in measuring graduated weights in the positive direction (5, 4, 3, 2, 1) to calculate the degrees of its alternatives mentioned in a row, and accordingly, the total degree of the scale is (250) and the lowest degree is (50).

One of the requirements for describing the results of the scale is to display the statistical parameters of the results of the rationing sample before the process of deriving the criteria, and as shown in Table (2), as the statistical characteristics of the cognitive motivation scale and the items of the cognitive motivation scale were found on the rating sample of (60) players as shown in Table (2) and (3)

Table (2) shows the descriptive statistical data for the cognitive motivation scale

Scale name	Number	Measuring unit	Mean	Std. Deviations	Skewness	Maximum value	Minimum value
Cognitive Motivation	185	Degree	198.89	23.211	0.397-	242	134

Table (3) shows the descriptive statistical data, Paragraphs of the cognitive motivation scale

Paragraphs	Mean	Std. Deviations	Skewness	Paragraphs	Mean	Std. Deviations	Skewness
1	4.5459	0.81381	-2.046-	26	3.8703	1.12985	-.702-
2	4.3297	0.83694	-1.023-	27	3.8108	1.16184	-.801-
3	4.0486	0.91652	-.482-	28	3.7838	1.12615	-.672-
4	3.8432	1.03329	-.786-	29	3.7405	1.13623	-.621-
5	3.8649	1.01516	-.513-	30	3.8216	1.14946	-.774-
6	3.8649	1.10734	-.846-	31	3.7946	1.16141	-.707-
7	3.9784	1.04235	-.684-	32	3.8216	1.19581	-.846-
8	3.9838	0.94682	-.744-	33	3.8541	1.15876	-.898-
9	3.9514	1.07986	-.793-	34	4.0486	1.08988	-1.065-
10	3.9297	1.00023	-.714-	35	4.1081	1.03692	-1.254-
11	3.9568	1.03644	-.683-	36	4.3622	0.91109	-1.611-
12	3.9405	1.00094	-.735-	37	4.1838	0.90215	-1.090-
13	3.973	1.1346	-.985-	38	4.1784	0.90022	-.993-

14	3.8432	1.15263	-.873-	39	4.0162	0.94682	-.770-
15	4.2757	0.99165	-1.524-	40	3.9459	0.98207	-.761-
16	4.3081	0.85159	-1.386-	41	3.9892	0.99449	-.850-
17	4.2432	0.85355	-1.179-	42	3.9568	0.96587	-.645-
18	4.0757	0.92941	-.891-	43	3.8865	0.99076	-.753-
19	4.0811	0.96059	-.945-	44	3.8649	0.96578	-.457-
20	3.9784	0.98883	-.843-	45	3.7351	1.12777	-.565-
21	4.0541	0.91918	-.702-	46	3.8973	1.05049	-.589-
22	3.9351	0.98693	-.726-	47	3.9135	1.07495	-.755-
23	3.9189	0.97742	-.542-	48	3.9027	1.02747	-.684-
24	3.7838	1.11158	-.643-	49	3.9189	0.97742	-.542-
25	3.8486	1.09287	-.604-	50	3.9297	1.00023	-.714-

Standard scores of the cognitive motivation scale for the Rationing sample

It is noted from the results of Table (2) that the value of the skew coefficient of the cognitive motivation scale is determined between (+1), which indicates the normal (moderate) distribution of the rationing sample on the results of the cognitive motivation scale scores and the absence of

outliers and it is thus ready to start deriving the scale criteria for the purposes of Evaluation of cognitive motivation, as the researcher arranged it in ascending order and found the standard degree (Z) and the modified standard degree.

Table (4) shows the raw and standard degrees (Z) and the modified standard degree

No.	Raw degree	standard degree (Z)	modified standard degree	No.	Raw degree	standard degree (Z)	modified standard degree
1	134	-2.79	22.04	94	201	0.09	50.91
2	137	-2.66	23.34	95	201	0.09	50.91
3	150	-2.10	28.94	96	202	0.13	51.34
4	151	-2.06	29.37	97	202	0.13	51.34
5	154	-1.93	30.66	98	203	0.18	51.77
6	154	-1.93	30.66	99	203	0.18	51.77
7	155	-1.89	31.09	100	204	0.22	52.2
8	157	-1.80	31.95	101	204	0.22	52.2
9	160	-1.67	33.24	102	204	0.22	52.2
10	161	-1.63	33.68	103	204	0.22	52.2
11	161	-1.63	33.68	104	204	0.22	52.2
12	162	-1.58	34.11	105	205	0.26	52.63
13	162	-1.58	34.11	106	205	0.26	52.63

14	162	-1.58	34.11	107	205	0.26	52.63
15	163	-1.54	34.54	108	205	0.26	52.63
16	163	-1.54	34.54	109	206	0.31	53.06
17	163	-1.54	34.54	110	206	0.31	53.06
18	163	-1.54	34.54	111	206	0.31	53.06
19	164	-1.50	34.97	112	207	0.35	53.49
20	165	-1.46	35.4	113	207	0.35	53.49
21	165	-1.46	35.4	114	208	0.39	53.92
22	165	-1.46	35.4	115	208	0.39	53.92
23	166	-1.41	35.83	116	208	0.39	53.92
24	166	-1.41	35.83	117	208	0.39	53.92
25	167	-1.37	36.26	118	208	0.39	53.92
26	168	-1.33	36.69	119	209	0.44	54.35
27	169	-1.28	37.12	120	209	0.44	54.35
28	170	-1.24	37.55	121	209	0.44	54.35
29	172	-1.15	38.41	122	209	0.44	54.35
30	173	-1.11	38.85	123	212	0.56	55.65
31	173	-1.11	38.85	124	212	0.56	55.65
32	173	-1.11	38.85	125	212	0.56	55.65
33	174	-1.07	39.28	126	212	0.56	55.65
34	175	-1.02	39.71	127	213	0.61	56.08
35	176	-0.98	40.14	128	214	0.65	56.51
36	177	-0.94	40.57	129	214	0.65	56.51
37	177	-0.94	40.57	130	215	0.69	56.94
38	178	-0.90	41	131	215	0.69	56.94
39	178	-0.90	41	132	215	0.69	56.94
40	179	-0.85	41.43	133	216	0.74	57.37
41	181	-0.77	42.29	134	216	0.74	57.37
42	181	-0.77	42.29	135	216	0.74	57.37
43	182	-0.72	42.72	136	217	0.78	57.8
44	182	-0.72	42.72	137	217	0.78	57.8
45	182	-0.72	42.72	138	217	0.78	57.8

46	183	-0.68	43.15	139	218	0.82	58.23
47	183	-0.68	43.15	140	218	0.82	58.23
48	184	-0.64	43.58	141	219	0.87	58.66
49	184	-0.64	43.58	142	219	0.87	58.66
50	185	-0.59	44.02	143	219	0.87	58.66
51	186	-0.55	44.45	144	219	0.87	58.66
52	186	-0.55	44.45	145	219	0.87	58.66
53	187	-0.51	44.88	146	220	0.91	59.09
54	187	-0.51	44.88	147	220	0.91	59.09
55	187	-0.51	44.88	148	220	0.91	59.09
56	188	-0.46	45.31	149	221	0.95	59.52
57	188	-0.46	45.31	150	221	0.95	59.52
58	189	-0.42	45.74	151	222	1.00	59.96
59	189	-0.42	45.74	152	222	1.00	59.96
60	190	-0.38	46.17	153	222	1.00	59.96
61	190	-0.38	46.17	154	223	1.04	60.39
62	190	-0.38	46.17	155	223	1.04	60.39
63	190	-0.38	46.17	156	223	1.04	60.39
64	192	-0.29	47.03	157	224	1.08	60.82
65	192	-0.29	47.03	158	224	1.08	60.82
66	192	-0.29	47.03	159	224	1.08	60.82
67	193	-0.25	47.46	160	225	1.12	61.25
68	193	-0.25	47.46	161	225	1.12	61.25
69	194	-0.21	47.89	162	226	1.17	61.68
70	195	-0.16	48.32	163	226	1.17	61.68
71	195	-0.16	48.32	164	226	1.17	61.68
72	195	-0.16	48.32	165	226	1.17	61.68
73	195	-0.16	48.32	166	227	1.21	62.11
74	195	-0.16	48.32	167	227	1.21	62.11
75	196	-0.12	48.75	168	228	1.25	62.54
76	196	-0.12	48.75	169	228	1.25	62.54
77	196	-0.12	48.75	170	228	1.25	62.54

78	197	-0.08	49.18	171	228	1.25	62.54
79	197	-0.08	49.18	172	229	1.30	62.97
80	198	-0.03	49.62	173	231	1.38	63.83
81	198	-0.03	49.62	174	231	1.38	63.83
82	198	-0.03	49.62	175	232	1.43	64.26
83	198	-0.03	49.62	176	232	1.43	64.26
84	198	-0.03	49.62	177	233	1.47	64.69
85	198	-0.03	49.62	178	234	1.51	65.13
86	198	-0.03	49.62	179	236	1.60	65.99
87	199	0.00	50.05	180	236	1.60	65.99
88	199	0.00	50.05	181	238	1.68	66.85
89	199	0.00	50.05	182	238	1.68	66.85
90	200	0.05	50.48	183	238	1.68	66.85
91	200	0.05	50.48	184	239	1.73	67.28
92	200	0.05	50.48	185	242	1.86	68.57
93	201	0.09	50.91				

Identifying standard levels:

In order to derive the criteria for the scale, the data in Table (5) have been tabulated

and the standard levels and frequencies have been set based on the values of the standardized (final) and Z-scores mentioned in it as shown in Table (5)

Table (5) shows the derivation of criteria for the cognitive motivation scale

standard degree (Z)	modified standard degree	Criterion	sample (number)Repetition	Percentage
(2.06-) - (2.79-)	29.37 - 22.04	weak	4	% 2.162
(1.02-) - (1.93-)	39.71 - 30.66	Acceptable	31	% 16.756
(0.03-) - (0.98-)	49.62 - 40.14	Middle	51	%27.567
(1.00) - (0.00)	59.96 - 50.05	Good	67	% 36.216
(1.86) - (1.04)	68.57 – 60.39	Very Good	32	% 17.297
Totals			185	% 100

From the observation of Table (5) it is clear that the number of the Rationing sample achieved (5) criteria which are (weak - acceptable - medium - good - very good) for evaluating the scores of the cognitive motivation scale in a standard reference evaluation, as there is no very weak criterion, and the most frequent occurrences were in A good and average criterion, and thus the cognitive motivation scale can be evaluated according to these criteria, in which the evaluation task is complementary to the measurement, especially since this measurement is diagnostic to describe the researched phenomenon in order to find solutions to the weaknesses that will help in increasing

Results and discussion:

Conclusions and Recommendations:

Conclusions:

- The researchers concluded that most of the players' cognitive motivation levels are within a medium and good level.
- Adopting the standardized cognitive motivation scale to detect the levels of cognitive motivation among young volleyball players and paying attention to the cognitive aspect because it has a major role in reaching higher levels.

Recommendations:

- The researchers recommend that this scale should be used and applied to different players in order

knowledge and awareness that seeks to increase Attention to cognitive motivation.

It states (Allam, 2012) "The characteristics of the reference group from which the criteria are derived, and their similarity with the characteristics of the individuals for whom decisions will be taken in light of these criteria, which are not absolute or stable, should be taken into consideration, but rather are relative criteria that depend mainly on certain reference groups, These criteria are greatly affected by changing the characteristics of these groups, with which the individual compares in a particular trait, or group of traits, that the scale measures.

to identify the levels of cognitive motivation to enable them to reach the highest levels by knowing the levels of cognitive motivation among the teams.

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