

CONSTRUCTION OF EMOTIONAL INTELLIGENCE SCALE FOR HANDBALL COACHES IN IRAQ

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Abstract

The aim of this study was to construct Emotional Intelligence (EI) scale for handball coaches in Iraq. EI is considered to be an important measure of success. There are many EI scales to measure EI of doctors, players, managers, and common people but it has been noticed that there was a research gap of EI Scale for handball coaches in Iraq. The EI scale was for handball coaches in accordance with Daniel Goleman's Model (Goleman,1998). The scale's reliability, and validity are tested through various statistical measures and the final scale is designed.

Keywords: Sport psychology. Emotional intelligence. Daniel Goleman model. Handball Coaches.

CONSTRUYENDO UNA MEDIDA DE INTELIGENCIA EMOCIONAL PARA LOS ENTRENADORES DE BALONMANO EN IRAK

RESUMEN

El objetivo del presente estudio fue construir una escala de Inteligencia Emocional (IE) para entrenadores de balonmano en Irak. La IE es una medida importante del éxito. Hay muchas escalas de IE para medir la IE de médicos, jugadores, gerentes y personas comunes, pero se ha notado que había una brecha en la investigación de la Escala de IE para entrenadores de balonmano en Irak. La escala de IE fue para entrenadores de balonmano de acuerdo con el Modelo de Daniel Goleman (Goleman, 1998). La confiabilidad y validez de la escala se prueban a través de varias medidas estadísticas y se diseña la escala final.

Palabras Clave: Psicología del deporte. Inteligencia emocional. Modelo de Daniel Goleman. Entrenadores de balonmano.

Introduction

Many scientific disciplines in the areas of physiology (exercise physiology), psychology (sports psychology), anatomy, biomechanics (sports biomechanics), biochemistry, and kinesiology and others have been incorporated in sport. Team handball has received growing interest during the past decades. Handball consists of a group of players under the leadership of the coach. It is a game characterized by friction between the players due to the presence of 12 players in the court at close distances, as well as the technical preparation and organization of the team. All of this imposes a large number of events that face the coach.

The psychological aspect plays an important role in the personality of the coach and his/her ability to interact

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with the variables of the match. The coach leads the players and directs them according to his accumulated experience. And as such his/her behavior as such is affected by many variables during the matches. This includes but not limited to is the tactical or technical aspects, which can affect and be affected by the emotional aspects of the coach. One such aspect is EI which is an important component of the psychological aspects of the coach's leadership capabilities. The success of the coach depends on communicating with the players which is determined by the personality and experience of the coach and relationship with the team.

The emotion serves the technical performance during training or the match (Tiba and Nidaa, 2021), and this greatly imposes the need to determine the EI of the coach, and the way he/she deals with the players in all circumstances which requires him/her to make appropriate decision. Goleman believes that the nature of EI concept constitutes an obstacle to measuring it in an effective and objective way (Goleman, 1998). Therefore, as determining the coach's intelligence is carried out by finding an appropriate scale to measure his/her EI, as the training experience differs from that acquired by a person who does not practice sports.

Goleman's model, was formulated according to performance theory (Goleman, 2001). To Goleman, emotional competencies are not innate talents, but rather learned capabilities that must be worked on and can be developed to achieve outstanding performance. Goleman believes that individuals are born with a general emotional intelligence that determines their potential for learning emotional competencies (Goleman, 1998). It has been reported that EI required be developed in order to reach higher levels of performance; whether professional or social (Hussain and Hussain, 2006). This coincides in agreement with what (Amjad, 2011) who mentioned stated that determining and measuring the level of EI could allow for its development by following scientific programs and organized and coordinated training for the sample that is under development. This applies to sports, especially handball coaches, as they are in a continuous process of performance and learning from one training level to another, and from repeated experiences of success and failure to another.

Therefore, constructing a scale to measure EI is expected to facilitate the process of assessment and measuring EI of handball coaches, and is an important step in determining the components of his/her personality and the possibility of developing their competencies. This will be positively reflected on the team's performance during performance in training and competition.

Methods

A descriptive approach based on Goleman (1998) was adopted to establish the proposed scale. Aljabri and Jawad (2021) stated that a descriptive approach is one of the forms of organized scientific analysis of interpretation to describe a specific phenomenon or problem and depict it quantitatively by collecting data and standardized information.

Participants

The research sample consisted of 198 Iraqi Premier League (IPL) clubs players were chosen in accordance with the intentional selection method. This number represents 87.6 percent of the total number of players in the IPL clubs in Iraq (226) as shown in Table 1 (Table 1).

Table 1: Shows the research community; samples and numbers, and their numbers in experimental test and constructing samples.

Samples	Numbers	Wxperimental tests	Constructing sample
Almusaib	16	-	14
Alkhalij Alarabi	15	-	13
Alshurta	15	2	13
Alkufa	16	-	12
Aljaish	13	2	11
Alhashd alshaabi	15	2	13
Karbalaa	16	-	14
Altaaoun	16	-	12
Baladiat albasra	15	-	14
Alkarkh	15	2	13
Alkut	15	-	12
Diala	16	-	15
Alfutua	15	-	14
Naft Maysan	14	-	14
Alnasria	14	-	14

Scale Procedures

Formulation of scale paragraphs (statements):

Formulation of the scale was constructed after reviewing:

1. The opinion of the IPL clubs players regarding the EI and its components.
2. The literature and previous studies.
3. The current measures that deal with the variable of emotional intelligence.
4. Goleman's opinion on emotional intelligence (Goleman, 1998).

Goleman Model includes five basic components. Three of which deals with the personal competencies i.e. understanding and managing emotions (self-awareness, emotional management, and self-motivation), and the other two deals with the social competencies, empathy and social relations (Goleman, 2000).

The study was formulated to include 65 items, with 13 items for each component, and adopted a five-graded scale to measure the responses of the players, and the expected alternative response were (always, often, sometimes, rarely, never) and relevant weights (1, 2, 3, 4, 5), respectively. All items of the scale were built to be positive.

A self-report method has been used to measure the emotional intelligence. This is in agreement with Anastasi and Urbina (1997) who stated that the self-report style is most appropriate approach to measure the emotional characteristics.

Scale Validity

Validity is one of the most important psychometric characteristics and basic indicators for any measuring tool or testing of a specific subject, to confirm if the scale has well achieved the purpose for which it was developed and to measure the trait that was prepared to measure and without being affected by other variables (Mustafa and others, 2000).

The scale was presented to a committee consisting of 10 specialized experts to ensure the validity of the paragraphs and their measurement of EI. Some paragraphs were excluded, others were amended. The paragraphs that obtained the approval of 8 experts or more were kept. This number was adopted as a criterion for the validity of the paragraph which represents percentage 80.44%, it is statistically significant between approvers and not approvers by using Chi-square at the level 0.05 and a degree of freedom (1). Thus, 10 items were excluded, and the total items of the scale were 55 items as shown in table 2 (Table 2).

Set up scale instructions

- The paragraphs should be easy and understandable.

- It ensures reassurance to the respondent about the confidentiality of the answer by not mentioning the name.
- It answers all questions and do not leave any paragraph.

Discriminatory Power of Phrases

The discriminatory power (DP) of phrases means the ability to distinguish between individuals who have a high degree of the trait and those who have a low degree of the same trait (Abdulhafez, and Mustafa, 2000). In order to obtain the DP, the data from the scale for the constructing sample, which amounted to 198 questionnaires, was emptied. Marwan (1999) stated that the steps to obtain the DP are summarized includes:

- Descending order of degrees.
- Obtaining 27% of the constructing sample questionnaires from the highest and lowest building sample questionnaires.
- Using the t-test for the independent samples and extracted the values of the discrimination coefficients for the emotional intelligence scale. Thus, the number of paragraphs of the scale becomes 50 paragraphs distributed equally among the five fields of the scale as shown in table 3 (Table 3).

The Coefficient of Internal Consistency of Phrases

Internal consistency coefficient was used to analyze the expressions of the scale and ensure the consistency of its paragraphs. So the correlation was found through Pearson correlation coefficient (r) between the score of each paragraph with the total score of the scale. This type of validity is interested in knowing whether each paragraph is going in the right direction with the scale or not. As well as ensuring the consistency of the scale paragraphs to measure the phenomenon (Allen and Yen, 2001). If the correlation coefficient increases; we get a consistency scale. Exclusion of the paragraph with weak correlation with the total score increases the validity of the scale. The results of 50 paragraphs were statistically significant (P<0.05). Correlation coefficients values for these paragraphs are greater than the tabular value at this level and its value 0.196.

It has also been found correlation coefficients between the degree of each paragraph with the degree of its field. Correlation coefficients were significant at the level of (P<0.05). So all the paragraphs are directed in one direction with their fields, as shown in table 4 (Table 4).

Abu Hatab (1973) pointed out that if the test or scale consists of several sub-scales, as is the case in the current scale, the method can be modified by calculating the correlation coefficients between the tests or sub-scales with the total score of the scale To ensure that the scale is more comprehensive,

Table 2: Shows the opinion of the arbitrators, paragraphs numbers of the emotional intelligence scale, and the approvers and not approvers to ensure the paragraphs validity.

Paragraph	Paragraph number	Approvers		Not approvers		Chi-square value	Sig. level
		Freq.	Ratio%	Freq.	Ratio%		
1	2,5,10,11,13,15,18,19,22,24,25,28,29,33,35,41,42,45,47,49,50,57,59,63,65	12	100%	0	0%	12	Sig.
2	3,4,16,21,23,26,27,31,34,36,48,51,53,56,58,60,62,64	11	91.7	1	8.4%	8.4	Sig.
3	1,3,9,20,32,37,39,40,44,61,52,53	10	83.4	2	16.7	5.8	Sig.
4	6,4,14,30,7,12,17,54,55,64	7	58.4	5	41.7	0.4	Non sig.

Table 3: Shows the indicators of discriminatory power of the emotional intelligence field's items.

NO.	T value	correlation	NO.	T value	correlation	NO.	T value	correlation	NO.	T value	correlation
1	6.50	0.36	14	11.2	0.33	27	3.76	0.35	40	2.34	0.43
2	3.28	0.32	15	12.5	0.35	28	4.32	0.36	41	4.33	0.23
3	7.15	0.29	16	7.31	0.29	29	2.77	0.25	42	3.54	0.42
4	6.12	0.33	17	4.67	0.44	30	3.76	0.41	43	2.19	0.45
5	4.12	0.38	18	4.37	0.34	31	4.65	0.26	44	3.17	0.34
6	3.78	0.36	19	12.4	0.23	32	3.34	0.34	45	4.23	0.51
7	3.11	0.33	20	8.12	0.46	33	4.21	0.28	46	3.23	0.42
8	3.88	0.21	21	3.22	0.28	34	2.44	0.33	47	2.49	0.61
9	4.45	0.33	22	4.22	0.41	35	2.33	0.22	48	4.66	0.53
10	5.12	0.33	23	4.64	0.37	36	5.21	0.35	49	3.89	0.39
11	3.9	0.26	24	5.32	0.34	37	3.22	0.44	50	3.43	0.47
12	6.50	0.32	25	5.22	0.35	38	2.43	0.32			
13	7.22	0.36	26	3.12	0.38	39	3.90	0.33			

Table 4: Shows correlation coefficients between the score of each paragraph and the total score of the field.

Paragraph	Self-Awareness	Para.	Emotional Management	Para.	Self Motivation	Para.	Empathy	Para.	Social Relations
1	0.44	11	0.33	21	0.53	31	0.47	41	0.43
2	0.36	12	0,37	22	0,39	32	0.55	42	0.49
3	0.42	13	0.43	23	0.43	33	0.44	43	0.42
4	0.43	14	0.47	24	0.33	34	0.49	44	0.39
5	0.47	15	0.31	25	0.36	35	0.43	45	0.53
6	0.41	16	0.39	26	0.48	36	0.45	46	0.45
7	0.46	17	0.36	27	0.42	37	0.41	47	0.46
8	0.52	18	0.35	28	0.48	38	0.47	48	0.38
9	0.46	19	0.43	29	0.42	39	0.46	49	0.47
10	0.53	20	0.45	30	0.49	40	0.38	50	0.45

Table 5: Shows the correlation coefficients between the total score of the emotional intelligence scale and its five fields.

Fields	Self-Awareness	Emotional Management	Self-Motivation	Empathy	Social Relations
Correlation coefficient	0.77	0.79	0.82	0.81	0.85

Table 6: Shows Reliability coefficients for the five fields of emotional intelligence scale by test and retest method.

Fields	Self-Awareness	Emotional Management	Self-Motivation	Empathy	Social Relations
Reliability coefficient	0.82	0.81	0.83	0.80	0.82

Table 7: Shows reliability coefficients for the five fields of the emotional intelligence scale using Cronbach's alpha method.

Fields	Self-Awareness	Emotional Management	Self Motivation	Empathy	Social Relations	Total Scores
Reliability coefficient	0.83	0.82	0.82	0.81	0.83	0.85

the Pearson correlation coefficient was calculated between the degree of each field and the total score of the scale as well as the rest of the fields, as shown in table 5 (Table 5).

Verify the reliability of the scale

To verify the reliability of the scale, the reliability coefficient was calculated using the test and re-test method after 15 days from the first application. The reliability coefficient in this method reveals the reliability of the results provided by the scale over a specific time interval, the extracted reliability coefficient is called the stability coefficient (Odeh, and Khalil, 1988). The reliability coefficient of the scale was 0.82, which is statistically significant at the level of ($P < 0.05$), as shown in table 6 (Table 6).

It was also resorted to calculating the reliability coefficient through the Cronbach alpha equation for the fields. Nunnally (1978) indicates that the Cronbach's alpha coefficient provides us with an acceptable estimate in the most situations, and the reliability coefficients that range between 0.50 - 0.60 are considered acceptable, and the degree of coefficients ranged Reliability for the fields between 0.81 - 0.83 and the total score 0.85 for all items, and the results were all acceptable as shown in table 7 (Table 7).

Conclusions

It has concluded from the results of this study that

- The construction of the scale according to Goleman model is suitable for measuring EI of Iraqi handball coaches.
- The five alternative answers were suitable for the sample of players.
- The paragraphs were appropriate and easy when applied to get the answers.
- All procedures for constructing emotional intelligence scale were completed, and the total number of its paragraphs was 50 in its final form, distributed over the five fields as shown in Appendix (1)

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	Phrases	Always	Often	Sometimes	Rarely	Never
1	The coach allows the players to express their feelings					
2	He feels sad that he gave wrong directions to the players					
3	He deals wisely with all sporting situations					
4	He can read other people's thoughts					
5	He does not reflect his personal issues on to the players					
6	He uses his experiences with success and failure in most situations					
7	He has the ability to win the trust of other players and management					
8	It is easy for him to understand the feelings of the players					
9	He stays away from situations that cause him sadness					
10	He has the ability to identify the problems facing him					
11	He eagerly follows the movements and successes of the rest of the coaches					
12	He has the ability to raise his problems to the management of the team					
13	He turns the frustration of competition into a motive for success					
14	He surrenders to the challenges facing him or the team					
15	He accepts criticism from players objectively					
16	He feels loved by the players					
17	He uses all his sporting expertise					
18	He has the ability to successfully manage the team					
19	He easily overcomes his weaknesses					
20	He tries to apply what he learned in the training sessions					
21	He tries to take advantage of the tips that raise his potential					
22	He chooses the appropriate tactics for the team excellently					
23	He doesn't give all his time to his team					
24	He is able to complete the training task well					
25	He feels capable to overcome competition difficulties					
26	He controls the negative states that accompany matches					
27	He expresses his emotions in any way					
28	He aspires to be a successful person					
29	He links tactical ideas with the events of the game					
30	He is good at communicating with others to achieve his goals					
31	He shows remorse for actions he committed during the competition					
32	He always thinks about the sporting goals set					
33	Obstacles do not affect him during training					
34	He controls his actions during pressure matches					
35	He shares his negative and positive feelings with others					
36	He respects the feelings of others despite the differences with them					
37	He feels happy to approach of points the view among the players					
38	He always seeks to provide assistance to the team members					
39	He listens well to other's opinions					
40	He reacts emotionally to the players' hurtful situations					

41	He takes responsibility to help the players					
42	He is friendly when dealing with his beloved players					
43	He feels happy for the players' success in the matches					
44	He depends on the players support					
45	He is able to read the players' opinions and thoughts					
46	He has the ability to gain the trust of others					
47	He helps players get through critical situations					
48	He deals with all levels of cultural players					
49	He supports the positive side in all situations					
50	He gives a lot of space for dialogues to solve problems					

Appendix 1: The final scale of emotional intelligence for handball coaches.