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## Emotional Intelligence, Social Interaction, and Its Relationship to the Performance of Serving and Receiving Skills in Volleyball Third Stage for Female Students

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### Abstract

*The research aims to know the degree of study variables (emotional intelligence - social interaction - serving - receiving the serve) in the research sample, as well as to know the relationship between (emotional intelligence - social interaction) and the performance of the skills (serving - receiving the serve) in volleyball in the research sample. The researchers used the descriptive approach using a correlational approach, as it was appropriate for the research problem and objectives. The research community was represented by third-year female students at the College of Physical Education and Sports Sciences for Woman/University of Baghdad for the academic year (2024-2025), numbering (34) students divided into (2) sections. The research sample represented (100%) of the total research community, as (5) female students, representing (14.705%), were randomly selected by lottery to represent the exploratory sample. The remaining (29) female students represented the main experimental sample, representing (85.294%). There were significant differences between the arithmetic mean and the hypothetical mean for each of (emotional intelligence - social interaction) in favor of the hypothetical mean. This indicates the weakness of the sample in these two variables. The researchers attribute this to the lack of interest in mental and psychological aspects, especially (emotional intelligence - social interaction) among female learners, and the focus primarily on the skill aspect only, despite its significant impact on performance. Conclusion: The low level of emotional intelligence and social interaction among the research sample, and the low level of serving among the research sample members.*

**Keywords:** Emotional Intelligence Social Interaction, Serving Skill, Receiving Skill, Volleyball.

### Introduction

This era is known as "the era of speed" due to the significant scientific developments in various areas of life, especially in education and the content of the educational process. This is based on its important foundations (teacher - learner - curriculum) and the means and mechanisms it includes for the inputs and outputs of lessons, including theoretical and practical ones (Ahmed & Hamoodi, 2021). The learner is bound by numerous variables, including mental, psychological, skill-based, planning, physiological, and others, all of which play a role in learning and performing sports skills, particularly volleyball skills. Emotional intelligence is one of these variables, as it is a type of intelligence that carries several names, including (emotional intelligence, personal intelligence, and emotional intelligence). Intellectual intelligence alone is not sufficient for an individual's success at work and school unless it is linked to his relationships with others. Therefore, emotional intelligence is complementary to general intellectual

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intelligence. Emotional intelligence means "the ability to perceive one's own feelings and the feelings of others and to employ these feelings in making appropriate decisions in life, as well as the ability to deal with pressure, control emotions, and empathize with others" (Hamoodi , 2019). An individual who possesses emotional intelligence has the ability to regulate his emotions and feelings, as well as the ability to self-control and is distinguished by his flexibility in interacting with others. We must not forget the role of psychological factors on the learner, as we find that there are many psychological variables that affect the learner and consequently affect his performance. One of these variables is social interaction. An individual's interaction with colleagues, teachers, and family enhances relationships and communication among them. The individual needs others to satisfy his basic needs, which he cannot achieve alone. Through the exchange of ideas, feelings, opinions, and suggestions, the individual achieves his goals. The individual is not isolated from the world in his decisions and inclinations, but is linked to the framework of cooperative social relations around him. The ultimate outcome of studying mental and psychological variables is to enable the learner to achieve the best performance, especially in the skills of serving and receiving the serve in volleyball, which are among the important basic skills without which victory is impossible. From the above, we see the importance of the research lying in the importance of enabling learners to achieve optimal performance by studying variables that may play a role in skill learning, including emotional intelligence and social interaction. Furthermore, it is important to study these two variables, as they are mental and psychological variables that must be studied to understand their value to the learner. We must not forget the importance of the serve skill, which is the key to the game, as it is the skill with which we begin the game. Without a successful serve, the game cannot be played. The skill of receiving the serve also helps us receive the incoming ball from a successful serve and attempt to return the ball to the opposing team, preventing them from scoring a direct point. The problem with the research lies in the weak performance of the skills of serving and receiving the serve among most female students, despite their repeated performance and the sufficient time given to learning the skill. The researchers attribute this to a lack of attention to the mental and psychological aspects of female learners, despite their importance in the educational process, particularly emotional intelligence and social interaction. The research aims to know the degree of study variables (emotional intelligence - social interaction - serving - receiving the serve) in the research sample, as well as to know the relationship between (emotional intelligence - social interaction) and the performance of the skills (serving - receiving the serve) in volleyball in the research sample. The research assumes the existence of a statistically significant correlation between (emotional intelligence - social interaction) and the performance of the skills (serving - receiving the serve) in volleyball in the research sample. The research areas were represented by third-year female students in the College of Physical Education and Sports Sciences for Woman / University of Baghdad / morning study for the period from 1/10/2024 to 12/2/2025. The experiment was conducted in the classrooms and the internal hall in the college.

### **Method and Procedures**

The researchers used the descriptive approach using a correlational approach, as it was appropriate for the research problem and objectives. The research community was represented by third-year female students at the College of Physical Education and Sports Sciences for Woman/University of Baghdad for the academic year (2024-2025), numbering (34) students divided into (2) sections. The research sample represented (100%) of the total research community, as (5) female students, representing (14.705%), were randomly selected by lottery to represent the exploratory sample. The remaining (29) female students represented the main

experimental sample, representing (85.294%). The researchers used the following research tools:

**1. Emotional Intelligence Scale (Hamoodi , 2019):**

After reviewing numerous sources, the (Khalil , 2010 )Scale was developed, which consists of (144) items distributed across (5) domains: (self-awareness, emotional management, motivation, empathy, and social skills). The answer alternatives are graded as follows: (always (3) points - sometimes (2) points - never (1) points) for positive statements and the opposite for negative statements whose paragraphs are (6-11-15-26-27-44-47-60-63-70-77-78-82-84-88-92-96-101-113-123-136-138-141-144) and the scale is corrected by adding the scores. Accordingly, the highest score for the scale is (432) and the lowest score is (144) with a hypothetical average of (288).

**2. Social Interaction Scale (Abdul Amir , 2011):**

The researchers relied on the scale constructed by (Youssef Abdul Amir), which consists of (76) items distributed over (7) domains: (social relations, emotional participation, competitive spirit, sportsmanship, cooperation, initiative, and cultural aspect), with answer alternatives (strongly agree, agree, sometimes agree, disagree, strongly disagree), and scores (5-4-3-2-1) for positive statements and their opposite for negative statements. Thus, the highest score for the scale is (380), the lowest score is (76), and the hypothetical mean is (228).

**3. Serve Test: (Hamoodi , 2019)**

- Purpose of the test: To measure a volleyball player's serving skill in a match-like situation.
- Equipment: A legal volleyball court, a legal volleyball, and the court set up as shown in Figure (1).
- Performance Specifications: The player stands in the middle of the end line of the half of the court facing the designated half of the court, 9 meters from the net. The player holds the ball and serves by any means necessary to pass the net into the designated half of the court.
- Conditions: 1- Each player has ten attempts. 2- If the ball goes out, the player's attempt is counted among the ten attempts and no points are awarded.
- Scoring: For each correct serve, the number of the zone in which the ball lands in the designated half of the court is calculated. Since the player has ten attempts on this test, and the scores are distributed across zones from 1 to 4, the maximum score for this test is (40). Note that if the ball lands on a line separating two zones, the player is awarded the higher zone score.

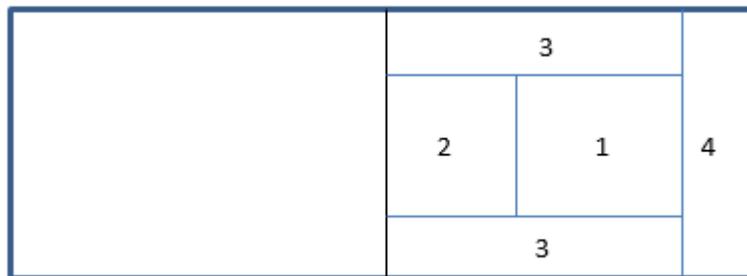


Figure (1) Serving test

**4. Serve Receiving Test: (Naseef et al., 2012)**

- Test Name: Technical Performance of the Serve Receiving Skill

- Test Purpose: To measure the skill level of receiving the serve with the arms from below, using experts.
- Equipment Used: A legal volleyball court, (3) volleyballs, a measuring tape. A circle is drawn in the middle of the court in the backcourt, with the distance between the center of the circle and the side line being (4.5) meters, and the distance between its center and the attack line being (3) meters. The distance between the center of the circle and its circumference is (1.5) meters, with a diameter of (3) meters, as shown in Figure (2).
- Performance Specifications: The examinee stands inside the circle, facing the net. The coach must send the ball to the examinee from this position, so that he can receive it, directing it into the frontcourt. Each examinee is given three attempts.
- Scoring Method: The examinee's performance in the three attempts is evaluated by experts, and the scoring is divided as follows:
  - Preparatory Section: Grade (3).
  - Main Section: Grade (5).
  - Final Section: Grade (2).

The final score was calculated by finding the arithmetic mean of the attempts and extracting the arithmetic mean of the three experts' evaluations.

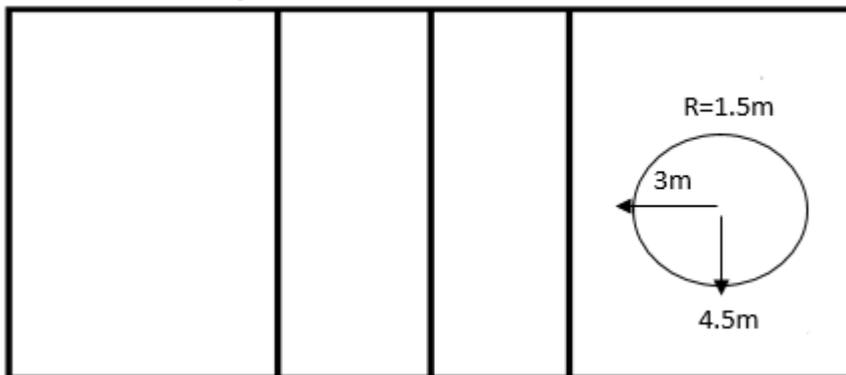


Figure (2) Serving receiving Test

The researchers conducted pilot experiments for the Emotional Intelligence and Social Interaction scales and the Serving and Serving Receiving tests on October 21-22, 2024, on a pilot sample of (5) female students from the research community and outside the main pilot sample. The two scales were administered in the classrooms of the College of Physical Education and Sports Sciences for Woman at the University of Baghdad. The skill tests (Serving and Serving Receiving) were administered the following day in the internal hall of the same college. The purpose of conducting these experiments was to avoid any difficulties that might arise in the main experiment, as well as to ensure the suitability of the two scales and tests for the sample level and to determine the appropriate time for implementing them. In light of the pilot experiment, the above was confirmed. The main experiment for (Emotional Intelligence - Social Interaction) was conducted on the main experiment sample on 12/11/2024 in the classrooms of the College of Physical Education and Sports Sciences for Woman / University of Baghdad, where the emotional intelligence scale form was distributed to the sample, and after reading the scale instructions and ensuring that the sample understood the answer method, they were given sufficient time to answer the scale, after which the forms were collected from the sample, then a

rest period of (5) minutes was given, after which the social interaction scale form was distributed to the same sample in the same place, and the same previous procedures that were conducted for the emotional intelligence scale were implemented, and the forms were collected for statistical processing. As for the tests (serving - receiving serving), they were conducted on the main experiment sample on 19/11/2024 in the college's internal hall and on the volleyball court, and the data was collected and entered into special forms for statistical processing according to the statistical package program (SPSS).

### 3. Results:

Table 1. Shows the results of the emotional intelligence and social interaction scales.

Variables	Arithmetic mean	Standard deviation	Hypothetical mean	T value calculated	Level Sig	Type Sig
Emotional Intelligence	245,41	2,13	288	5,37	0,00	Sig
Social Interaction	133,87	1,24	228	4,76	0,00	Sig

Significant when the significance value < 0.05

Table 2. shows the results of the serve and serve rejection tests in volleyball.

Variables	Arithmetic mean	Standard deviation
Serve	15,12	1,64
Receiving serve	5,89	1,11

Table 3. shows the results of the correlation between emotional intelligence and both serving and receiving the serve in volleyball.

No.	Tests	Emotional intelligence	Level Sig	Type Sig
1	Serve	0,81	0,00	Sig
2	Receiving serve	0,86	0,00	Sig

Significant when the significance value < 0.05

Table 4. shows the results of the correlation between social interaction and both serving and receiving serves in volleyball.

No.	Tests	social interaction	Level Sig	Type Sig
1	Serve	0,72	0,003	Sig
2	Receiving serve	0,88	0,00	Sig

Significant when the significance value < 0.05

(Table1) shows significant differences between the arithmetic mean and the hypothetical mean for each of (emotional intelligence - social interaction), in favor of the hypothetical mean. This indicates the sample's weakness in these two variables. The researchers attribute this to a lack of interest in mental and psychological aspects, particularly (emotional intelligence - social

interaction), among female learners, and a primary focus on the skill aspect alone, despite its significant impact on performance. (table 2) also shows weak serving values among the sample members. While the skill of receiving the serve was better, it did not reach the required level. The researchers attribute this to a lack of interest in other aspects related to performance, resulting in weak skill performance and a failure to reach the required level despite repetition and practice. (table 3) shows a strong correlation between emotional intelligence and the performance of the skills of serving and receiving the serve in volleyball. Both skills require the learner to have a degree of intelligence in general and emotional intelligence in particular, so that the serving player can send the ball into the opposing team's court, specifically towards empty areas or towards the weak player. We also find that it is necessary for the serving player to possess emotional intelligence that makes him feel the team's dependence on him to score a direct point. The serving skill is one of the "offensive skills that plays an important role in achieving a direct point without the team making any effort. Conversely, losing it results in losing the opportunity to obtain a point and for the other team to obtain it. This in turn affects the psychological and physical state and thus good communication during the game" (Samer et al., 2016). As for the skill of receiving the serve, its success depends on receiving the ball sent by the player closest to the place of the ball's fall and then delivering it to the appropriately prepared player so that the team can perform a successful offensive strike. All of this requires emotional intelligence among the players and a passion for the game and mastery of it. An individual who "has emotional intelligence is characterized by empathy and hope" (Al-Sultani, 2014). This is what a student needs to learn and perform the skill, as she needs to feel hopeful and optimistic to learn the skill, as well as empathize with others and cooperate with each other. Table (4) also shows a significant correlation between social interaction and both the skills of serving and receiving the serve in volleyball. Volleyball is a team game whose success and team victory depend on the interaction and solidarity of the team members, as the ultimate goal of the team is to achieve victory. This cannot be achieved only through cooperation among team members. Social interaction "not only affects individuals, but also affects those in charge of the programs themselves, leading to modifications in their work methods and improved behavior based on the responses to which individuals respond" (Al-Shinawi et al., 2001). "The interaction between students varies and depends on the duration and relationships between them and their strengthening" (Abbas & Naseef , 2023). We also find that through cooperation between students, individual differences between them are reduced. Providing assistance, support, and exchanging opinions accelerates the learning process and reduces individual differences between them. This is what (Najla ,2019) indicated when she stated that "the group's inclusion of varying levels of students (weak, average, good) also had an impact on these results, as this process led to a reduction in individual differences in level among students" (Naseef , 2019).

### **Conclusion:**

The researchers reached several conclusions, namely:

- The low level of emotional intelligence and social interaction among the research sample.
- The low level of serving among the research sample members.
- The skill of receiving the serve did not reach the desired level among the research sample members.
- Emotional intelligence plays an important role in the performance of the serving and receiving skills in volleyball among female students.
- Social interaction plays an important role in the performance of female students' serving and receiving skills in volleyball.

### **Recommendation:**

The researchers recommend the following:

- Focus on the mental and psychological aspects of learners to achieve better results in learning and performing skills.
- Utilize the results of the current study to understand the role of these two variables (emotional intelligence and social interaction) on skill performance.
- Conduct periodic tests on the emotional intelligence and social interaction variables of female students.
- Conduct similar studies on other volleyball skills other than those used in the current study to understand the role of emotional intelligence and social interaction in the performance of these skills.

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