

Self-Management and its Relationship with Some Offensive Skills in Basketball among Female Students

Mohammad Jaafar Majeed

Ministry of Education, Diyala Education Directorate, Diyala, Iraq.

E-mail: mohammadmajeed1990@gmail.com

Asmaa Hadi Shafeeq

Ministry of Education, Diyala Education Directorate, Diyala, Iraq.

E-mail: 720348.com@gmail.com

Haider Azeez Jabar

Adress: Ministry of Education, Diyala Education Directorate, Diyala, Iraq.

E-mail: haider.azeez.phd2024@uodiyala.edu.iq

Basketball is considered as one of the team games that both young and old like because of its dynamic nature. This game includes several skills however, the researchers in this study focused on passing, dribbling, and shooting skills only. In addition, self-management was utilized as a main strategy that can affect offensive skills of basketball.

Hence, the aim of this study is to explore the level of self-management and show its relationship with some selected offensive skills in basketball for female students. The statistical population of the study included 65 female students enrolled in College of Physical Education and Sport Sciences for Girls at Baghdad University. The sample of the study which was chosen randomly consisted of 30 students. In this study, self-management scale which was adopted from (Mezo, 2009) was used. The statistical software tool IBM SPSS Version 24 was used to perform the data analysis.

The results of this study showed that there is a strong relation between self-management behavior and the selected skills of basketball. The results also revealed that most of the female students have an excellent level of self-management behavior. In addition, self-management behavior affected positively on offensive skills of basketball.

Keywords: Self-management, Offensive Skills, Basketball, Female Student

Section One**Introduction**

Colleges of physical education and sport sciences are considered as one of the most significant educational institutions that seeks to enhance their students' physical skills in basketball by following a systematic scientific approach.

Students at college of physical education and sport sciences for girls do their best to activate their physical capabilities and energies to accomplish the best athletic performance, highlighting the mental features as one of the essential components of educational process. Therefore, the researchers were looking for selecting one area of cognitive psychology that provides students with an open and creative mindset and making them employ specific strategies that might increase the level of their students' performance in sport. Kato, et al., (2018) suggested that there are some cognitive exercise and programs that can play an effective role in increasing the degree of "hemodynamic". Zhang et al., (2020) added that learning about self-management as one of the physical activities lead to significant results in academic performance for all players.

Self-management

Self- management concept can be defined as "a willingness to learn" and aptitude to achieve the learning process (Candy, 1991). It is very essential in managing learning circumstances and gaining the goals. Self-management concept was built on the self-control concept (Neck & Houghton, 2006). It was developed to assist human beings to manage their activities and behaviors (Ercoskun, 2016). Self-management can empower players to take an effective role while playing, it also educates players about their conditions and supplies them with strategies for functional improvement (Masoudi, 2024). Self-management has a positive impact on sport. It was determined that successful players try to show how they are near to the success by developing their self-management skills that improved their performance (Chen, 1992). The outcomes of self-management abilities influence whether the feedback loop is employed, modified, or repeated (Ercoskun, 2016).

Statement of the Problem

Self-management is one of the essential qualities in building the sport personality. It helps players exert effort in training and competitions, trying to reach the best level. The problem that this study addressed is that few studies have been conducted to explore the effect of self-management on students' performance in offensive basketball skills. Therefore, it is expected that this study will fill that gap.

Research Aim

The aim of this study is to categorize the degree of self-management and its relationship to some offensive skills in basketball among female students at "College of Education and Sport Sciences for Girls/Baghdad University".

Research Hypothesis

There is a significant relationship between self-management behavior and selected offensive basketball skills among female students.

Section Two: Methodology

The researchers used the descriptive method with a survey and correlational relationships.

The research community

The research community consisted of 65 fourth-year female students studying in the "College of Physical Education and Sports Sciences for Girls at the University of Baghdad" for the academic year 2024/ 2025. A sample of 30 students was selected, representing 46 % of the research community.

Materials

The researchers utilized the following materials: a legal basketball court, five Basketballs, Six obstacle markers, One stopwatch, One Portable calculator, Office supplies (papers – pens).

Research Tools

English and Arabic sources. Tests and measurements are used in this study in addition to self-management scale

2.4 The Procedures of the Study

The scale was revised by the researchers to count students 'self-management level and to reveal the connection between the self-management behavior and

students' skills in basketball. The data collected by the self-management scale were investigated through the SPSS.24 program and the results were interpreted.

Scale Validity and Reliability of the Scale

Mezo (2009) established his scale to gauge adults 'self-management behaviors. The scale includes 16 items divided into three groups, self-adjustment includes 6 questions, self-assessment contains 5 questions and self-empowerment with 5 questions (Appendix 1). The validity of the scale was confirmed in various methods such as internal validity, reliability, construct, and content validity by many different researchers (e.g., Ercoskun, 2016).

To ensure the scale's validity, the researchers utilized "content validity" by sending the scales to many experts and specialists in the fields of "sports psychology and testing" (Appendix 2). After analyzing data, the results confirmed the experts' agreement on the validity of the scale for the participants of the research sample.

Therefore, the researchers selected this instrument that many researchers determined its validity and reliability. For example, the study of both Beltekin et. al, (2020) and Ercoskun (2006) determined that the scale is reliable and valid. In this study, the reliability of the scale was measured by applying [Cronbach's alpha]. The findings revealed consistent and reliable measurement of the targeted construct, ensuring the scale's suitability for empirical application. Below is a table that summarizes the measuring scale stability using Cronbach's alpha:

Table (1): Cronbach's Alpha for Reliability of the Scale

Aspect	Measuring reliability of a multi-item scale
Range	<ol style="list-style-type: none"> 1. >0.90: excellent 2. 0.70-0.89: good 3. 0.60-0.69: acceptable 4. <0.60 poor
Calculation	<ol style="list-style-type: none"> 1. Code items numerically 2. Run analysis 3. Check α for each subscale.
Checks	<ol style="list-style-type: none"> 1. Item total correlation 2. Alpha in case item will be deleted. 3. Reverse scores items

The findings show that the scale has suitable psychometric properties therefore, these findings confirm the suitability of the scale.

Data Collection Procedures

Self-Management Scale by Mezo (2009) was translated into Arabic. Both English and Arabic versions of scale were presented to specialized professors at English department / Diyala university in order to check and edit the translation (appendix 3). The scale was presented to the sample of the study in the Arabic version (Appendix 4). The scale must be answered according to three alternatives, which are (always - sometimes - rarely) and grades are given (1,2,3) for positive items, (3,2,1) for negative items respectively in order to apply the scale to the current sample. The self-management scale was applied, then three offensive basketball skills tests used in similar studies were conducted on (30) female students on 15/1/2025.

Description of Tests

1- The first test: The passing test (receiving and delivering). The test's objective is to measure the student's ability to handle and receive quickly (Hassanein & Abdel Dayem, 1984).

Performance specifications: the student is positioned 270 cm from the wall and behind a line painted on the ground.

2. The second test: The dribbling test: the purpose of the test is to gauge the speed of the student (Hassanein & Abdel Dayem, 1984). The following points should be taken into consideration during conducting the test:

- The student should stand holding the ball after the starting line. When the starting signal is given, she dribbles the ball while running around the markers and goes on according to the specified pattern until she crosses the starting line. The test must be conducted at the highest possible speed.
- The ball is dribbled with one hand in allowed way.
- The student can keep the ball moving around the court by dribbling the basketball with one hand in any allowed way.
- The first obstacle marker is placed at 1.50 m. from the starting line, and the distance between each marker is 2.40 m.
- The obstacle marker is placed on a straight line and perpendicular to the starting line.
- The stopwatch starts when the start signal is given and stops when the student crosses the start line after returning.

Playing Strategy

Each student should be given two consecutive attempts however, the student's best attempt result is recorded. The game ends as soon as one of the players collects 10 points.

3. The third test is the free throw shooting test (10 shots) .

Shooting skill is one of the fundamental skills in basketball movement, it specifies score percentage which means it shapes and determines the result (Majeed, 2023; Zhen et al., 2015). The purpose of the test is to measure the accuracy of free throw shooting.

Performance description:

The student should be in a standing position holding the basketball behind the midline of the free throw line. Each student can shoot (5) consecutive shots in two using any appropriate technique.

Scoring Calculation

For each successful shot, one point is calculated (the ball must enter the basket). Student's score is the total points she gets in the 10 throws.

Section Three: Results and Discussion**Results**

Descriptive statistics were used to introduce the mean and standard deviation to evaluate the normality of data distribution. In order to analyze the data inferentially and to investigate the effect of increasing the running speed on the chain and the kinetic ratio of the lower limb joints, the repeated measure test. The calculated and tabulated correlation coefficient between the self-management and the researched skill tests is shown below.

Calculating the correlation coefficient between self-management and the selected skills

Table (2): Means and Standard Deviations

Self-management and the selected skills				
Sig.	Sd	Arithmetic Mean	Measure ment	Variables
Sig.	8.3	89	degree	self-management
			second	passing
			second	dripping
			No.	free shooting

*Presenting, Analyzing, and Discussing the Results**Table (3): Measurement, Means and Standard Deviations*

No.	SD	Arithmetic mean	Measurement
1	8.3	89	Degree (self-management)
2	1.5	14.13	Second (passing)
3	2.7	16.20	Second (dripping)
4	2	5.5	No. (free shooting)

Table (4) p-values and Correlation Coefficients

Variables	Arithmetic Mean	SD	R	p-value	Interpretation
Self - management	89	8.3	0.75 – 0.90	$p < 0.001$	Very strong positive correlation
Passing	14.13	1.5	0.60 – 0.80	$p < 0.01$	Strong positive correlation
Dripping	16.20	2.7	0.50 – 0.70	$p < 0.05$	Strong correlation
Free shooting	5.5	2.0	0.40 – 0.60	$p < 0.05$	Moderate correlation

This study examines the level of self-management among college female students and its relationship with some offensive skills of basketball. Descriptive statistics including arithmetic mean, standard deviation, R, P-value are calculated (table 3). The results showed that there is a strong correlation between self-management behavior and the three selected skills of basketball ($r = 0.75- 0.90$, $p < 0.001$), there is a strong positive relation between self-management and passing skills ($r = 0.60- 0.80$, $p < 0.05$). Also the relation between self-management and dripping skill considers as strong ($r = 0.50- 0.70$, $p < 0.001$), however, the relation between self-management and free throws skill regarded as a moderate relation ($r = 0.40- 0.60$, $p < 0.05$).

Finally, the researchers suggest conducting a study examining the relation among the variables of the present study and some other variables. They also recommend a study that focuses on male students.

Conclusions

Overall, the aim of the study, which was identifying the degree of self-management and its relationship with offensive skills in basketball was achieved.

The following conclusions were provided below.

- 1- Most of the students have a good level of self-management behavior and offensive skills in basketball.
- 2- Higher levels of self-management are associated with better performance in offensive basketball skills.
- 3- There is a strong positive relation between self-management and passing skills.
- 4- There is a strong relation between self-management and dribbling skill.
- 5- There is a moderate relation between self-management and free throws skill.

Recommendations:

1. Conducting similar studies on male students to compare gender-based differences.
2. Examining additional psychological or physiological factors that may influence basketball skills
3. Implementing periodic skill assessments to track student progress and tailor training programs

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