

# The Relation between Achievement Motivation and Performance of Forehand and Backhand Shooting Skills in Badminton for First Stage Female Students

Saif Abdul-Zahra Hamza

*Department of theoretical science, Faculty of Physical Education and Sport Sciences, Al Mostanseryah University*

## ABSTRACT

The game of badminton is one of the individual games that got quick leaps in skill, physical and tactical development, so it became constantly evolving in line with the progress that has occurred in all various sports. However, the game faced obstacles in preparation and conditioning of players to get to a higher level and to achieve the desired goals of sports in each game. There is no doubt that the psychological factor is one of the many and important developmental requirements as this factor has a profound impact on sport achievements like other (physical, skill and tactical) factors. Sports psychology is one of the important rules in the training process without which it is difficult to reach the level of integrated achievement because this factor is the content of training and effective on what is owned by athletes in terms of high capabilities and potential. In addition, achievement motivation is one of the drivers of conduct, performance, and even a key for sports practice. When it reaches a certain level, it leads to satisfactory results as it works to reduce space and bring distances to upgrade the performance of students and their better advancement. Thus achievement motivation is one of the early works that teachers should develop. The research problem is to know achievement motivation and its relationship to accurate performance of forehand and backhand skills in badminton. The present study aims to identify the achievement motivation for female students of the first stage in Faculty of Physical Education and Sport Sciences/Baghdad University as well as identification of measuring performance accuracy of backhand and forehand shooting skills by female students of the first stage in Faculty of Physical Education and Sport Sciences/Baghdad University. The study sample has been selected of students in the first stage at Faculty of Physical Education and Sport Science and the number of respondents was (23 female students) for the academic year 2015-2016 and for the period from 06/12/2015 until 28/04/2016. The study used the descriptive method and statistical method including the arithmetic mean, standard deviation and Pearson correlation coefficient to analyze the results. The results showed that there was no significant correlation between achievement motivation and measurement of performance accuracy of forehand and backhand shooting skills in badminton for students of the first stage in Faculty of Physical Education and Sport Sciences/Baghdad University. Findings of the study conclude that female students do not have the motivation of achievement in forehand shot of badminton while they have the motivation to achieve the backhand shot in badminton. Hence, the importance of the psychological aspect must be stressed through psychological and mental tests to see the performance of student through encouragement, rewards and foreign motivations and develop their motor performance in the field of badminton as well as emphasis on the development of footwork and physical capabilities in the performance of skill tests for female students and conduct studies of the relationship between achievement motivation and various other sports.

**Keywords:** Achievement motivation, performance, shooting, skills, badminton

### Access this article online



**Website:**  
<http://sjsr.se/>

**ISSN:**  
2001-9211

## INTRODUCTION

Achievement motivation is one of the key variables that determine the activity carried out by the individual to perform. It is supposed that when an individual starts any activity, it is intended to reach a degree of achievement. Absence of the sense of achievement

### Address for correspondence:

Saif Abdul-Zahra Hamza, Department of theoretical science, Faculty of Physical Education and Sport Sciences, Al Mostanseryah University. E-mail: [Alnmr77@yahoo.com](mailto:Alnmr77@yahoo.com)

and the goal can develop negative feelings such as frustration and withdrawal<sup>(1</sup>Thaer Ghobari:, 2008, 187). Moreover, motivation is a state of internal tension works to provoke and guide behavior, as an internal case or strength that contributes to move behavior to direct it to achieve a particular goal (Mohammad Hassan Allawi: 1998,211.) Most specialists of psychological studies agree that the cause of multiplicity and diversity of human activity is primarily due to the large number of motivations and concerns of the human as multiplicity of such needs, motivations and desires and diversity for the individuals work to diversify behavioral attitudes and choices they make in order to achieve goals or to satisfy certain motives involved. Such cases and others can be explained on the basis of the existence of motives, needs and concerns of the individuals. The research into the subject of (motivation) means detection of the main reasons behind human behaviors in terms of diversity and change that occurs (Imad Abdul Rahman Zglul: 2007, 215.)

The study of motivations of human behavior increases the understanding of man of himself and of other people because our knowledge is far greater if we know the different motivations that drive or cause us to perform kinds of various behaviors in all situations and circumstances. In addition, our knowledge of motivations that drive others to do their behavior makes us able to understand their behavior and its interpretation. The study of motivation helps us predict human conduct in the future. If we know the motivations of someone, we can predict his behavior in certain conditions and we can use our knowledge of people's motivations to control and direct their behavior to certain destinations and certain objectives through creation of some of situations that will excite their certain motivations that urge them to do the work that we want them to perform and stop them from doing some other works that we do not want them to perform (Thaer Ghobari, Op. Cit, 197.). Since the aim of sports psychology is to understand the athlete's behavior, control it and predictability in order to develop it, the study of the motivations of this behavior helps to identify its magnitude, shape and direction in order to be explicable, From this point, the subject of motivation has become one of the leading topics of interest in sports psychology concerned by sport trainers and one of the most exciting and interesting as to know why do some students practice physical activity, while some others only watch and see sport activities without exercise or why do some individuals exercise

games or certain sports activities exclusively from other sport activities. In addition, a sport trainer is interested in understanding why do some people continue the practice a physical activity and attend training trying to reach the highest levels of sports while others going out of practice (Ahmad Amin Fawzi: 2003, 81.).

Forehand shot is one of the core skills and of the most widely used in playing and training in any racket games performed in many ways (straight, intersecting, low, high) (Ann Batman: 1991, 47). In addition, forehand shot is performed by the front face of the racket in response to badminton coming in the direction of the right of player's body most likely (not the left). Its goal depends on the form of forehand shot. When the rise is lower, it will be in response to shots returning to the backyard of the court and is done from the highest possible point away from the body. It is directed to sides with enough height in a way that moves away from the net to the backyard of the court (Amin Al Khouli, Op. Cit, 1994, 73.). As for the backhand shot, it is one of the basic skills of any game from the different racket games. As in the forehand shot, it is performed in many ways and forms by playing positions required (straight, intersecting, low, high) and the training should be on both shots together due to their equal importance (Ann Batman, Op. Cit, 1991, 47).

Backhand shot is performed by the back face of the racket in response to badminton coming in the direction of the left from the player's body most likely (not the left) and its goal is exactly like in forehand shot (Amin Al Khouli, Op. Cit, 1994,73). The researcher, Haidar Abdul Reda Tarad (Haider Abdul Redha Tarrad: Babylon University, 2005) in his study entitled: "building and legalizing achievement motivation measurements for advanced volleyball players in Iraq" discussed building achievement motivation measurements for first and premier degree volleyball players in the 2004 season, legalizing achievement motivation measurements for first and premier degree volleyball players in the 2005 season and setting standard levels for achievement motivation measurements for first and premier degree volleyball players in the 2005. He used the descriptive method with surveys and standard studies while the study population included first and premier degree volleyball players in Iraq for the season (2005/2004). The most important finding of this study is to build and legalize an achievement motivation scale for first and premier degree volleyball club players besides derivation of standards and second-degree grade.

The researcher also noted the absence of significant differences in achievement motivation among first and premier degree volleyball club players. The similarity between the two studies is the use of achievement motivation scale for both studies. In addition, the descriptive method using surveys and correlations for both studies is similar. There are also significant differences in both studies. As for the differences between the two studies, the current study sample of students of the first stage - Faculty of Physical Education and Sport Sciences Baghdad University, while the previous study was on advanced volleyball players for first and second degrees.

## Methodology

The scientific research set and created many approaches that fit the solution to any of the scientific problems that require study and investigation. After choosing the appropriate method for research and problem to achieve the objective, these are of the most important steps upon which the success of the search or failure is based. A method is “the manner produced by the individual to reach a particular goal” (Akram Khattabyah: 1970, 19). Since the survey is one of the basic descriptive research methods, the researcher in the methodology of her study adopted the descriptive method with correlation (surveys) in overall steps.

## Population and Sample of the Study

The study population included female students of the first stage, Faculty of Physical Education and Sport Sciences - Baghdad University for the academic year 2016 - 2015 (88 students). The study sample included (23 female students) of the first stage, Division (j) selected by poll forming (26.13%) of the total population.

## Means, Tools and Appliances used in the Study

Sources and scientific references/a form to measure achievement motivation (Hassan Ali Hussein, 2011)/annex1/survey of experts and specialists in the field of sports psychology and badminton/Badminton Stadium/measuring tape, adhesive tape/additional posts with height of 244 cm/2 badminton rackets 6 badmintons.

## Field Procedures of the Study

### **Specifications of achievement motivation scale (Hassan Ali Hussein, 2011)**

The Achievement Motivation Scale (Hassan Ali Hussein, 2011) was adopted. It consists of (34) items

and alternative answers are (applies on me to a large extent, applies on me, does not apply at all) as the highest grade in the scale is (102) and the lowest one is (34).

### **Identifying skills of the study**

The researcher agreed with experts of badminton on selecting two skills from the curriculum of the first stage including forehand and backhand shots for badminton (Nadahan, Loai Hassan Al Bakr, Badminton, Baghdad University, Faculty of Physical Education and Sport Sciences).

### **Identifying Tests of the Main Trial**

The researcher agreed with the supervisor and experts of badminton in selecting one test for each skill.

### **Test of Forehand Shot (Main Mohammad Taha 2001, 64.)**

Test name: Forehand finishing (dimensional) shot.

The purpose of the test: Measuring the performance of forehand (dimensional) shot's finishing accuracy. Tools required: Badminton rackets, rope, extra posts with a height of (244 cm), information form and a planned court with test design.

### **Performance Description**

After explaining the test to respondents, they are given a good time to warm up and then each respondent is given (5) experimental trials/the respondent stands in the designated area (X)/at the moment that the coach serves the badminton to move if it is necessary for the success of the attempt and he should hit the badminton with the forehand shot (over the head), over the net and then the cord toward an area specific with degrees.

1. A respondent is given (12) attempts to calculate only his best (10) attempts.

### **Performance Evaluation**

The respondent is given (3) points in case of the fallen badminton in the area specified with a distance of (50 cm) after the back line of the court./the respondent is given (5) points in case of fallen badminton in the specified area approximately 76 cm between the back line of the court and the beginning of far-double serving line/the respondent is given (4) points in case of the fall of badminton in the area specified with a distance of (70 cm) long after the double serving line/the respondent is given two points in case of fallen badminton in the

specified area of approximately 124 cm, which starts from the end point (4) and ends at the imaginary line that extends down the rope. The higher grade is given in case of fallen badminton in the line between two points and no points are given for the badminton that falls outside the boundaries of the pitch or attached to the net. The maximum limit of the points recorded by the respondent in the best (10) attempts is 50 points.

### Test of backhand Shot (Mazen Hadi Kzar: 2003, 50-51)

The purpose of the test: Measuring the performance of backhand (dimensional) shot's finishing accuracy. Tools required: Badminton court as in figure 2, badminton rackets and adhesive tape, measuring tapes, information form and badmintons.

### Performance Description

After explaining the test to respondents, they are given an appropriate time to warm up and then each respondent is given (5) experimental trials/the respondent stands in the designated area (X)/the coach serves the badminton to reach at the left of the respondent (if holding the racket with the right arm/ the respondent is given 12 attempts and the best 10 attempts are count for him/a respondent can move for the success of the attempt and he can let any badminton that is thought to have failed attempt if returned. If the coach thinks that his serve is incorrect, he calls (repeat) and this attempt will not count. Maximum points that can be recorded by a respondent in the best (10) attempts is (40) points.

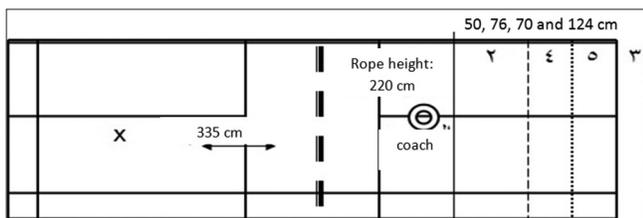


Figure 1: Plan of badminton court to examine the forehand finishing shot

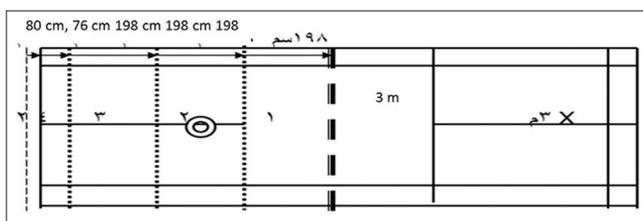


Figure 2: Plan of badminton court to examine the backhand finishing shot

### Performance Evaluation

The respondent is given (1) point in case of the fallen badminton in the area specified with a distance of (198 cm) from the mid court line below the net till the near serving line/the respondent is given (2) and (3) points in case of fallen badminton in the specified area approximately 198 cm starting from the near serving line and ends at the far double serve line/the respondent is given (4) points in case of the fall of badminton in the area specified distance (76 cm) long after the court end line/the respondent is given two points in case of fallen badminton in the specified area of approximately 80 cm, which separates the far double serve line and the far single serve line. The badminton that hangs in the net or gets outside the limits of the court (except for the specified area) will not record any points.

### Exploratory Trial

For the purpose of identifying all obstacles and negatives that may face the researchers during implementation of the main trial, the researcher performed the exploratory trial on a group from outside the main sample of the study (5 female students). They were tested randomly using the poll method among female students of the first year in Faculty of Physical Education and Sports Science, Baghdad University.

The exploratory trial was as follows: The researcher conducted the exploratory trial (for achievement motivation scale) on the trial sample (4 female students) on 24/02/2016 in Faculty of Physical Education and Sports Science, Baghdad University. The researcher did not calculate the scientific coefficients of the scale because the scale is applied on the Iraqi environment, legalized and characterized by validity, reliability and objectivity. On the following day, the researcher conducted an exploratory trial for both skill tests on the same sample of the trial by previous agreement with them (4 female students) on 25/02/2016 in Faculty of Physical Education and Sports Science, Baghdad University. In addition, the researcher did not calculate the scientific coefficients of the scale because the scale is applied on the Iraqi environment, legalized and characterized by validity, reliability and objectivity.

### Main Trial

The researcher conducted the main trial (for achievement motivation scale) on the main trial sample

(23 female students) on 02/03/2016 corresponding Wednesday in Faculty of Physical Education and Sports Science, Baghdad University. On the following day, the researcher conducted the main trial for both skill tests on the same sample of the main trial by previous agreement with them (23 female students) on 03/03/2016 corresponding Thursday in Faculty of Physical Education and Sports Science, Baghdad University.

### Statistical Means

The researcher used the SPSS statistical package for data treatment in the study and calculated the arithmetic mean, standard deviation SD and tests for dependent and independent samples.

## ANALYZING FINDINGS AND DISCUSSION

Table 1 shows values of arithmetic mean and standard deviation SD for the forehand shot (31.391 – 7.234 respectively), arithmetic mean and standard deviation SD for the backhand shot were (25.173 – 4.628 respectively), while arithmetic mean and standard deviation SD for achievement motivation was (7.593 – 70.739 respectively) on the sample of 23 items.

Table 2 shows Pearson correlation coefficient of achievement motivation for the forehand shot (0.133) when compared with significance degree (0.273) showing an insignificant difference at freedom degree (22).

Table 3 shows Pearson correlation coefficient of achievement motivation for the backhand shot (0.422) when compared with significance degree (0.22) showing an insignificant difference at freedom degree (22).

Table 2 shows no significant correlation between achievement motivation and measuring accuracy of performing the forehand shot. The researcher attributes the reason for this to the fact that female students of first stage did not have information and skill in badminton, weak skill ability and performance during playing or training for this skill leads to multiple errors accompanying performance. All of these reflect and lead to achievement motivation for the students although the skill that is easy to learn and perform. In addition, table (1) shows this idea as the arithmetic mean for the forehand shot is (31.391) which is bigger than the mean for backhand shot (25.173). This asserts

**Table 1:** Arithmetic means and standard deviations for achievement motivation, forehand and backhand shots

Statistical variables	Sample	Arithmetic mean	Standard deviation
Forehand shot	23	31,391	7,234
Backhand shot	23	25,173	4,628
Achievement motivation	23	70,739	7,539

**Table 2:** Results of correlation coefficient for achievement motivation and forehand shot

Statistical variables	Pearson coefficient	Real significance	Type of difference
Achievement motivation forehand shot	0.133	0.273	Insignificant

**Table 3:** Results of correlation coefficient for achievement motivation and backhand shot

Statistical variables	Pearson coefficient	Real significance	Type of difference
Achievement motivation backhand shot	0.244*	0.22	Significant

\* Significant  $\leq$  (0.05) at freedom degree (22)

that the forehand shot is easier in performance. By looking at the standard deviation SD of the forehand, it was (7.234), which is bigger than the SD for the backhand shot (4.628). This asserts that the level of the female students in performing the forehand shot varies and not close to each other, but the level of achievement motivation was weak, which led to the insignificant correlation.

Table 3 shows a significant correlation between achievement motivation and measuring accuracy of performing the backhand shot. The researcher attributes the reason for this to the fact that female students of first stage learned performance of backhand shot after learning the forehand shot. This is the process of transferring the effect of learning in the individual event and as a result of previous information for the students about how to perform badminton skills. Thus, backhand shot performance became enjoyable and this led to increase motivation by students more than in the forehand shot. In addition, the researcher thinks that whereas the backhand shot is more difficult than performing the forehand shot skill, this will generate a strong motivation for the students or a bigger challenge to perform the most difficult skill and not to fail in

it. On the other hand, achievement situations often include fear from failure for the individuals. Thus, in such situations, there is a trend to avoid failure, which is also the outcome of three factors: (motivation to avoid failure, possibility of failure and the motivational value of failure) (Ahmed Yahya Alzak, Op. Cit, 237).

From results of the study, we can conclude the following; the female students do not own the achievement motivation for the forehand shot in badminton. In addition, achievement motivation was found for female students in backhand shots in badminton.

## REFERENCES

- Ahmad Amin Fawzi: "Principles of Sports Psychology (Concepts - Applications)", Cairo, Dar Al Fikr Al Arabi, 2003.
- Ahmed Yahya Alzak: "Psychology", 1<sup>st</sup> Edition, Oman, Dar Wael for publication, 2009.
- Akram Khattabiyah: "Contemporary Curricula in Physical Education", 1<sup>st</sup> Edition, Dar Al Fikr, Oman, 1970.
- Ann Batman: "Tennis", Translation by Qasim Lazzam, Dar Al-Hikma, Baghdad, 1991.
- Thaer Ghobari: "Motivation (Theory and Practice)", 1<sup>st</sup> Edition, Oman, Dar Al Maisara for publication, distribution and printing, 2008.
- Hassan Ali Hussein: "Evaluating Achievement Motivation According to Personality Patterns (B-A) and its Relationship to Motor and Skill Potentials of Young Footballers", unpublished PhD Thesis, Faculty of Physical Education - Babylon University, 2011.
- Haider Abdul Redha Tarrad: "Building Achievement Motivation Scales for Advanced Volleyball Players in Iraq", unpublished PhD Thesis, Faculty of Physical Education – Babylon University, 2005.
- Abdul Rahman Ades, Muhyiddin Tawk: "Introduction to Psychology", 7<sup>th</sup> Edition, Oman, Dar Al Fikr Publishers & Distributors, 2009.
- Amer Saeed Jasim: "Psychology of Football", 1<sup>st</sup> Edition, Najaf, Dar Al Diaa for Printing and Design, 2008.
- Imad Abdul Rahman Zglul: "Principles of Educational Psychology", 6<sup>th</sup> Edition, Al Ain, University Book House, 2007.
- Mazen Hadi Kzar, "The Effect of Mental and Physical skill training on Accuracy and Speed of Motor Response of Badminton Players", Master Thesis, Babylon University, Faculty of Physical Education, 2003.
- Mohammad Hassan Allawi: "Introduction to Sports Psychology", Cairo, Book Center publishing, 1998.
- Muawiya Abu Ghazal: "Theories of Human Evolution and Educational Applications", 1<sup>st</sup> Edition, Oman, Dar Al Masira for publication and distribution and printing, 2006.
- Maecen Mohamed Taha, "The Impact of a Training Program with badmintons in Different Speeds on the Development of Badminton Skills", PhD Thesis, Faculty of Physical Education - Baghdad University, 2001.
- Mustafa Hussein Bahi, Samir Abd al-Qadir Jad: "Introduction to Modern Trends in Sports Psychology", 1<sup>st</sup> Edition, Amman, Casablanca Global Publishing and Distribution, 2004.
- Mohammed Abu Gado: "Educational Psychology", 1<sup>st</sup> Edition, Oman, Dar Al Masira for Publication, Distribution and Printing, 1998.