

## The effect of some speed exercises on the basic skills of basketball players

BOUDJATATE Ahmed<sup>1\*</sup>, CHERIFI Mohamed Amine<sup>2</sup>, BOURENANE  
CHERIF Mustapha<sup>3</sup>

<sup>1</sup> university of Algiers 3 (Algiers), [boudjatateahmed@univ-alger3.dz](mailto:boudjatateahmed@univ-alger3.dz)

<sup>2</sup> university of Algiers 3 (Algiers), [cherifi.medamine@univ-alger3.dz](mailto:cherifi.medamine@univ-alger3.dz)

<sup>3</sup> university of Algiers 3 (Algiers), [bourenane.cherif@univ-alger3.dz](mailto:bourenane.cherif@univ-alger3.dz)

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**Abstract:** As the researcher was a basketball player, the aim of the research was to identify the degree of impact of certain speed exercises on basic techniques and their relation with the success of the basketball players. The researcher selected his research sample among second-class Kouba Star Olympic Club players for the year 2021-2022, whose number was (22).

We obtained a correlation between the results of the research and the presence of a significant correlation between the rapid application of the planned exercises on the evolution of the level of certain types of speed, and the rapid application of the planned exercises on the evolution of the level of some basic basketball techniques. The researcher has, thus, recommended continuous work by applying the schematic exercises at a gradual speed until we reach their application at its maximum speed.

**Keywords:** speed exercises, Technical exercise, Basket Ball, players

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\* BOUDJATAT Ahmed.

## **I- Introduction :**

The progress that occurred on the efficiency of basket ball in Europe, Latin America, the USA, Africa, and some Asian countries did not happen by chance, or because of the use of unanalyzed ways. This progress in fact occurred because of a natural use of scientific ways in order to improve the different changes which have relationship with the improvement of the general level of the game as individuals or group (team) and the result of the great preoccupation that the countries give to this efficacy.

Two people can't disagree on the fact that every country Has its own style to train its players and to improve their different levels, whether these are physical, skilled , tactical or psychological, schools were established with their specificities and functionalities which distinguishes every school from others. However, in the Arab countries, there is still some race in what concerns the preoccupation of this efficacy between one country and another despite the fact that it is a public game. The used are still dependent of some unanalyzed and inadequate ways.

### **1 -2 The Problematic:**

Basketball together with all the sports game suffers much from the problems that need adequate solutions especially in the Arab countries. Among these problems one can cite the slow efficacy during the matches from which comes repugnance as we watch these contests. This slow efficacy is explained by the researcher to the weakness of the skills and the physical level besides the slow execution of the planned exercises during the training units.<sup>1</sup>

Therefore the researcher decided to study this problem and pose the adequate solutions through the quick application and the quick performance of some schematic exercises which help improve the level of some skills and some species of rapidity hat lead to get the players to get acquainted with the quick performance during the training units which reflects with the result on the quick performance during the matches.

### **1.3. Objectives of the research:**

The researcher aims at getting acquainted with:

- the effect of the quick practice of the scheduled exercises on the improvement of the level of some species of rapidity.
- the effect of the quick practice of the scheduled exercises on the improvement of some basketball basic skills.

### **1.4. Research Hypotheses:**

The research is supposed that:

- the quick application of the planned exercises leads to the improvement of the level of some basic skills with a basket ball.
- the quick application of the planned exercises leads to the improvement of some species of rapidity with a basket ball.

### **1.5. Field of Research:**

- Spatial field: Kouba, Algeria sports stadium
- Time field: duration from 20 / 9/2021 to 5/11/2021
- Human field: players of **Kouba Olympic Stars Club**.

## **2- Part two: Theoretical Studies.**

## 2-1 Training Elements in Basket ball.

Basketball is one of the most popular games in the world, and its importance comes from the fact that it contains a lot of individual movements that achieves the pleasure of practice and watching. This pleasure in practicing and viewing that basketball provides for practitioners and viewers did not come only after the process of upgrading of all its basic elements, and the main elements in basketball training can be divided into the following:

- Using time continuously.
- Learning to look at the board.
- Playing strategically.
- Playing against the last possessor of the ball<sup>2</sup>

Many researchers and those interested in basketball have pointed out that it is a difficult and complex game when performed by unqualified players and a team that has not completed all the elements of this game.

## 2-2 Physical Fitness:

One of the important aspects of basketball training is the training of Physical aptitude that includes all kinds of muscle strength (maximum strength, explosive power, characteristic speed strength, prolonged strength).

And also speed of all kinds (reaction speed, acceleration, maximum speed, speed prolongation), and general prolongation, special prolongation, flexibility, agility and other elements that together constitute physical fitness, which is one of the important factors through which positive results are achieved in basketball.<sup>3</sup>

## 2.3. Speed.

No two can disagree that speed is one of those important factors that play a major role in achieving results in addition to other factors that contribute to reaching those results, as the speed of response plays a major role in stopping the ball or in avoiding being tricked by the opponent in addition to other cases.

Acceleration also has a major role in many cases that occur in the match, such as racing for a ball far from the standing point between two opponents, as well as the maximum speed that the player often needs when competing with the opponent to get the ball when the situation requires maximum speed to get the ball before the opponent, either to shoot from various positions or to contribute to the scoring of the goal, while the speed perseverance makes the player or team able to complete the match with the same effectiveness in cases that require speed frequently.

Speed is amongst the physical abilities that a basketball player needs, and it plays an important role in most sports activities, especially those that require covering a specific distance in the shortest possible time, or when performing a specific skill whose implementation requires speed to achieve the goal of movement.

Besides, speed is associated with all of the physical abilities to give a component of specialized and effective importance for athletic achievement; it is associated with strength to give the strength characteristic of speed and is associated with perseverance to give speed prolongation.<sup>4</sup>

## 2-4 Skills with the Ball.

Just as the elements of fitness have a major role in the level of performance, the adjustment of performance of skills will lead to economy with effort, which in turn will lead to a greater ability to perform well throughout the duration of the periods. Besides, basketball skills are agreed on in most scientific sources and by most specialists or experts since the following skills (dialogue, incursion, shooting) are mostly taken into account with their use in the game.

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Coaches rely on putting game schedules specific to the matches depending on the skills and physical abilities that their players possess.<sup>5</sup> Moreover, Basic skills consist of several factors that the player uses in the match, such as individual skill, team play, and knowledge of the laws of the game. The idea of the basket requires that the player perform the basic skills with the utmost speed and accuracy with the possibility and high ability to change his direction with the ball due to the large number of its laws.<sup>6</sup>

The basic skills are a way to resolve bravely the multiple attitudes and situations on the field, and they are considered significant by the player, and to make decisions and act with the ball faster than others. the mastery of the basic skills requires continuous and incessant training for a long time. The more training the players' training the more their performance increases in applying the skills accurately according to the different changes of the playing circumstances.

### **2.5. Scheduled Exercises:**

Tactical exercises are among the important parts of many training units, especially in the exceptional preparation period or the competition period because it represents a situation close to or similar to what happens during the matches where the movements made by the players on the field require a common understanding by the players among themselves, and the ability to anticipate what is coming from the possibilities or actions that will be done by their colleagues, which makes it easier for them to surpass the opponent in different places from the middle of the ground. Besides, the control of the movement and common understanding will lead the team to reach the opponent's goal more quickly and in less time, and thus lead to the economy of effort and increase the number of times to reach the opponent's goal and in turn enhance the chances of scoring goals.<sup>7</sup>

In the analysis of the scheduled duties of the players, shooting appears as their first technical task; and in every form of shooting, whether it is while running or from various angle. However, shooting from positions under pressure is a good sign for a good attacker. Moreover, the technical skill in the use of butting on the target plays an important role in the emergence of the attacker as well as for shooting while running. When training the attackers to develop their technique and tactic, one should focus on:<sup>8</sup>

- Dialogue.
- Shooting
- Incursion
- Taking up of the sensory position.
- Attacking the ball bravely in the air and on the ground.

### **3. Section three: Research Methodology and its Field procedures.**

#### **3.1. Approach of the Research.**

The researcher used the experimental approach to suit the nature of the problem, where the control group was subject to the scheduled training program while the experimental group was subjected to the same training program with an emphasis on performing at full speed of the planned exercises scheduled in the training program.

The application of the tactical exercises took 18 training units, within 06 weeks, and by 03 training units that include planning exercises. The time of implementation of the exercises ranges between 35-45 minutes with a final total of 630 minutes; The tactical exercises were applied immediately after the warm-up and without any knowledge of the two groups that there is a training program that some players are subject to, knowing that there was no absence due to the strict system

followed by the coach, and there were no injuries that might hinder the application of the exercises, and the speed in performing the tactical exercises was the most important duty of the experimental players.

**3-2. Sample of the Study:**

The researcher adopted a sample consisting of 20 players from Olympic Boumerdes, Club and 18 players were randomly selected out of the research community of 22 players.

The sample was divided into two groups, each group was composed of 10 players, the first represents the control group that trains in the usual way, and the second group represents the experimental group that undergoes the tactical basketball exercises for the research.

The researcher used the results of the pre-tests to achieve homogeneity between the two groups in skills and physical elements by using the law (t) for the small independent samples by calculating the significance of the differences between the two samples as shown in Table (01).

Table (01): Shows the arithmetic means and standard deviations of the homogeneity tests for the experimental and control groups and the calculated value of (t).

Significant Test	Value (t)		Control Group		Experimental Group		Tests	
	Tabular	Calculated	y	x	Y	X		
Randomly	1.734	0.56	1.37	4.1	1.32	4.2	discussion	Main skills
		0.36	0.93	2	0.38	1.9	Incursion	
		0.21	0.67	10.11	0.61	10.1	Shooting	
		0.26	0.11	5.1	0.09	5.1	Weak	types of speed
		0.11	0.26	4.06	0.19	4.06	Big	
		0.56	2.28	29.89	2.28	29.9	Maximum	

Tabular value with a degree of freedom of 18 and a level of significance 0.05

**3.3.Setting the choices**

The researcher identified the tests after having reviewed some sources, namely: dialogue, incursion, shooting, acceleration, great speed and maximum speed.

**3-3-1 Scientific Basis of Testing.**

The researcher codified the tests so as to be able to use them in the research by subjecting them to scientific conditions (truthfulness, stability, objectivity). The tests have been applied to the players who did not enter the control or experimental groups, and the stability was calculated by re-testing and finding honesty through the root of stability. The research judged that the tests are objective as they are easy to understand and measure the variables required to measure them as they are characterized by ease of

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application and measured by time or repetition far from self-evaluation, as shown in Table (02)

Table (02) shows the coefficient of stability and validity for the skill tests and speed types

truthfulness	Stability	Tests	
0.92	0.85	discussion	Tests of skills
0.93	0.87	Incursion	
0.92	0.85	Explosive	
0.94	0.90	Weak	Tests of Speed types
0.97	.0	big	
0.92	0.85	maximum	

**4. Part four: Presentation, Analysis and Discussion of the Results.**

Through the results obtained by the researcher after applying the pre- and post-tests and using the test (t) for the correlated (non-independent) samples, it was found out from Table (03) that the average differences for the post-tests and pre-tests for the control group respectively: (-0.9), (0.8), (1.15), (0.486), (0.007), (0.99) and that the standard deviation of these differences is respectively: (-3.25), (-1.809), (15.99), (42.37), (0.23), (6.701), and all the values of (t) calculated for all tests were smaller than the values of (t) and this indicates that the training program used by the trainer for the control group has led to the improvement of the level of skills under study in addition to acceleration and the great speed. However, the maximum speed did not show any noticeable or statistically acceptable improvement. And the researcher believes that the maximum speed training for the control group did not receive the necessary amount of Time to develop it, or the exercises were not appropriate to the potential of the basketball players.

Table (03) shows the average differences and standard deviation of the differences for the pre- and post-tests of the skill tests and the types of speed for the control group.

Significance of differences	(t) value		N	Standard deviation of differences (PH)	Average sum of differences (q)	Tests
	Tabular	Calculated				
Basic skills						
Moral	1.833	3.25-	10	0.277	0.9-	Discussion
Moral	1.833	1.809-	10	0.442	0.8	Incursion
Moral	1.833	15.99	10	0.718	1.15	Shooting
Speed types						
Moral	1.833	42.37	10	0.0115	0.486	Weak
Moral	1.833	0.24	10	0.029	0.007	Big
Moral	1.833	6.01	10	0.149	0.99	Maximum

Tabular value with a degree of freedom of 9 and a level of significance 0.05

From Table (04), it is clear that the average differences between the pre- and post-tests of the experimental group (P) respectively: (-2.2), (-1.9), (2.033), (1.398), (-0.36), (3.4), and the standard deviations of the differences (f) respectively: (0.2), (0.314), (0.05), (0.017), (0.12), (0.31), and the value of (t) calculated respectively: (-11), (-6.04), (40.84), (91.05), (-3.04), (11.13), it means that the planned exercises developed by the researcher had a significant impact on the improvement of the level of the players in the skills in question and some types of speed in basketball.

**Table (04)** shows the average differences and standard deviation of the differences for the pre- and post-tests of the skill tests and the types of speed for the experimental group.

Significance of differences	Value(t)		N	Standard deviation of differences (PH)	Average sum of differences (q)	Tests
	Tabular	calculated				
Basic skills						



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Moral	1.833	11-	10	0.2	2.2-	Discussion
Moral	1.833	6.04-	10	0.314	1.9-	Incursion
Moral	1.833	40.84	10	0.05	2.033	Shooting
Types of speed						
Moral	1.833	91.05	10	0.017	1.398	Weak
Moral	1.833	3.04-	10	0.12	0.36-	Big
معنوي	1.833	11.13	10	0.31	3.4	Maximum

Tabular value with a degree of freedom of 9 and a significance level of 0.05

Through table (05) it is shown that the arithmetic means of the experimental group respectively (5), (3.8), (8.06), (3.6), (3.7) and (26.5) and standard deviations (1.33), (0.789), (0.68), (0.08), (0.48) and (1.43) and that the arithmetic means of the control group are, respectively: (6.4), (2.8), (8.96), (4.6), (4.5) and (28.9) and standard deviations respectively: (1.64), (1.03), (0.62), (0.11), (0.18) and (2.38) The value of (t) calculated for all the tests is greater than the tabular value of (t), and this indicates the validity of what the researcher came up with as the use of tactical exercises at full speed leads to a clear improvement in some basketball skills and some types of speed.

**Table (05)** shows the arithmetic means and standard deviations of the post-tests of the experimental and control groups and the calculated value of (t)

Moral	Value(t)		Control group		Experimental group		Tests	
	الجدولية	المحسوبة	ع	س	ع	س		
Moral	1.734	8.57-	1.64	6.4	1.33	5	discussion	Basic skills
		4.74	1.03	2.8	0.789	3.8	incursion	
		18.09-	0.62	8.96	0.68	8.06	shooting	
		52.12-	0.11	4.6	0.08	3.6	weak	Types of speed
		2.94-	0.18	4.05	0.48	3.7	big	
		7.06-	2.38	28.9	1.43	26.5	maximum	

Tabular value with a degree of freedom of 18 and a level of significance 0.05



## **5. Part Five: Conclusions and Recommendation.**

### **5.1 -Conclusions.**

Through the reached results, the researcher concludes the following:

- The rapid implementation of tactical exercises leads to the development of some basic basketball skills.
- The rapid implementation of tactical exercises leads to the development of some types of speed.
- The repetition of tactical exercises leads the players into getting filled with the performance of these exercises and thus increases the feeling of the ball, which leads to a gradual improvement in the level of performance and shooting by running.
- The performing of tactical exercises at full speed that makes the player approach the feeling of the atmosphere of the matches.

### **5. 2: Recommendations.**

The researcher recommends the following:

- The need for basketball coaches to rely on the continuous application of various tactical exercises to ensure the improvement of the level of some skills and some types of speed.
- The need to implement tactical exercises as quickly as possible to increase the player's sense of an atmosphere close to the atmosphere of matches.

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### Referrals and references:

Considers Times New Roman font, size 10, and interlines spacing 1, and a space before the reference. The bibliographic sources of the scientific material in the article are only those from which quotations are made, and precise exactly page / The referrals and references are arranged sequentially as they appear in the text of the text, and are all listed according to the American Psychological Association (APA) method as follows:

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