



**THE IMPACT OF THE PROPOSED TRAINING PROGRAM IN THE  
DEVELOPMENT OF RESISTANCE RECIPE FOR IMPROVING THE  
PERFORMANCE OF THE SKILL BLOCK FOR VOLLEYBALL  
PLAYER'S - EXPERIMENTAL STUDY ON THE  
SCHOOL TEAM (15-17 YEARS)**

**Hamani Brahim<sup>1</sup>, Mazari Fatah<sup>2</sup>, Mansouri Nabil<sup>3</sup>,  
Bouhadj Meziane<sup>4</sup>, Kasmi Bachir<sup>5i</sup>**

<sup>1,2,3,4</sup>Institute of Physical and Sports Activities, Bouira University, Algeria

<sup>5</sup>Institute of Sciences and Techniques, Institute of Physical and Sport Education  
University of Science and Technology, USTO, Algeria

**Abstract:**

This study aims to attempt to access the impact of the training modules in the character of resistance development, as well as the knowledge of the underlying relationship between the resistance and the impact on the skill block, and all this trying to provide a full diagnosis of the subject and improve the performance of the skill block, and I've got an idea topic after noticing the outcome of the national teams the suffering in this skill, With an attempt to give some solutions and recommendations on the subject. I have been using the experimental method, which is the most important methods used in the field of sports; we have supported our study with data that enabled us to choose an appropriate training program, which serves the subject of our study tests.

**Keywords:** resistance, skill block, volleyball

**1. Introduction**

Considered a game of volleyball in its current form a high-end gaming practiced in the international Olympic meetings, and bring many of the audience due to being one of the ball games marked by special advantage from the rest of the mass games characteristics, lack a certain time-linked, lack linked to time-bound, as well as how to

---

<sup>i</sup> Correspondence: [kasmi.ustoeips@yahoo.fr](mailto:kasmi.ustoeips@yahoo.fr)

deal with the ball where he sometimes found concrete, and other multiplied, plus a wonderful combination of technical and aesthetic performance that appears through the players move on the court, as well as high-level skills and tactical performance played by the players not fail volatile and exciting, which raises the level of excitement among players and spectators positions, all while Applied practice it, and all of the properties and put the game in the ranks of the Olympic Games.

The latter depends on the improvement of anaerobic ability to get to the good improvement, recipe resistance effectively intervene in determining the strength of the jump to the top of what makes it a key factor in determining the skill block wall, which depends on the strength of rising to a higher over the net and quickly, that made us think about the recipe resistance factor we developed to improve the skill block and this is what makes us touch upon the following question: *“Are there significant differences between the two groups and the experimental subject officer training units proposed in the development of resistance recipe?”*

Through this, we can ask questions of partial following:

1. Are the proposed training modules having an impact on improving the block technique?
2. Is developing a recipe resistance affecting the ability of upgrading?

## **2. General hypothesis**

There are significant differences between the two groups and the experimental subject officer training units proposed in the development of the recipe resistance.

### **2.1 Partial Hypotheses**

- The proposed training modules have an impact on improving the block technique.
- Development of a recipe resistance affects the ability of upgrading.

## **3. Materials and methods**

### **3.1 Action Methodology**

**A. Approach Used:** The method used, which was selected based on the nature of the problem that we want to study is the experimental method, which is the most important methods used in the field of sports, we have supported our study with data that enabled us to choose an appropriate training program, which serves the subject of

our study tests, so that was selected two groups and one experimental and the other witness, each group consists of 10 players conducted its tribal and dimensional tests so that the experimental group underwent the training modules built.

**B. Adjusting the variables of the study:** Tuning is a necessary element of the variables in any field study, and this is the purpose of the control as much as possible so that these settings be helpful to interpret and analyze the results of the field study, without falling into the obstacles, and adjust the variables of the study was as follows:

- Independent changer: training modules.
- Dependent variable: resistance, block

**C. Adjusting variables to members of the sample:**

- Time: Is the time when the team share a physical education evening was testing at this time. Since the pre-test was in January 2007 and was posttest in the month of April 2007.
- Age: And it is in the age group of 15 to 18 years.
- Gender: The group that underwent the tests are all males.

### 3.2 Sample and selection

The research sample consisted in the state Association of School Sports Borj Bou Arreridj team; the team was divided into two groups:

- experimental group including 10 players.
- control group and we including 10 players.

The sample was selected randomly and the way that serves the research, we have selected 20% of the team as a sample to calculate the reliability and validity testing.

### 3.3 Tools of the study

The first step, which we followed in our study is the development of transportation help on the distribution aspects of the research and is collecting information from the various references and this meant familiarity with the theoretical side of the practical side we provide the means and sports gear for the purpose of conducting tests on the sample community in school sports.

### 3.4 Tests used

- Improve test
- Defensive block test
- Offensive block test
- Test jump forward

### 3.6 Areas of study

- spatial field: tests were conducted in the field of state Association Foundation for school sports BOUIRA;
- temporal sphere: after selecting the subject of the study they did it for the institution where the tests were conducted as follows:
  - a) Tribal test: December 19, 2015;
  - b) Posttest: 20 April 2015.
- the human sphere: Including the human field research sample conducted by the tests, which included 20 players divided into two groups and a trial witness, so between the ages of 15 to 17 years.
- Statistical methods:
  - a) Arithmetic average;
  - b) Standard deviation;
  - c) "t" Student.
- Field Application Procedures: Applied our study included a set of exercises:
  - A. first exercise: jumping forward. The player standing in his place and when the trainer signal the player to annex his feet and then jump out of the fortitude forward a distance of 3 meters, and then repeat the exercise for 5 minutes, so that the rest period is 30 seconds.
  - B. second exercise: the rise of the stands. The player stands and the rise of a signal from his coach which consists of 12 stairs and he must do a run down, the rest period by reference or return to the starting point, exercise duration of 20 minutes.
  - C. third exercise: running a moderate pace

## 4. Results and Discussion

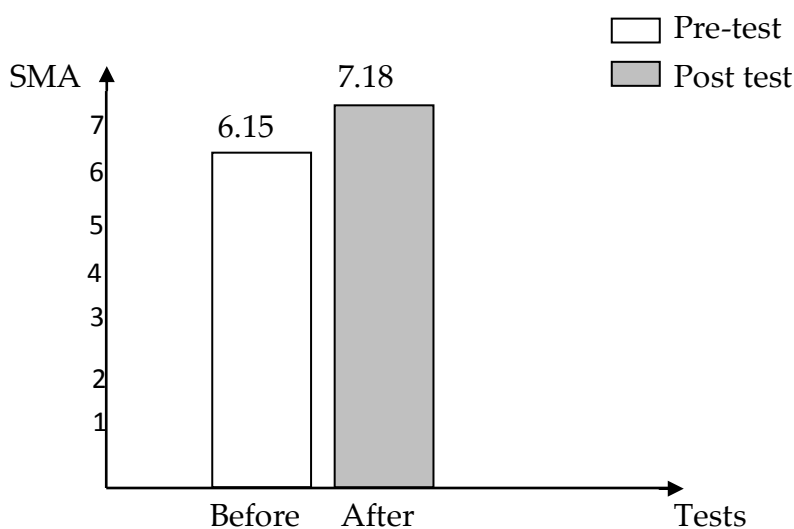
### A. Testing Jump Forward

The experimental group

	Number of sample	Highest value	The minimum value	SMA	The standard deviation "T"	The calculated "T"		Statistical significance at the level (0.05)
Pre test	10	6.94	5.23	6.15	0.55	4.68	1.81	Statistically significant
Post test	10	7.60	6.75	7.18	0.31			

**Table 2:** Pre-test and post-test jump forward a set of experimental results

Through Table (2) is clear to us that the SMA in the pre-test is 6.15 m and the standard deviation 0.55 M. The arithmetic average of the test posttest was 7.18 m and standard deviation 0.31 m, after the "T" account when the degree of freedom (n -1) and the level of significance 0.05 and 4.68 we found compared with the "T" spreadsheet which is equal to 1.81, we find that the "T" calculated larger than the "T" spreadsheet which shows that the results are statistically significant meaning there were no significant differences.



**Histogram 2:** Pre-test and post test results jump forward experimental group

### B. Upgrade Test

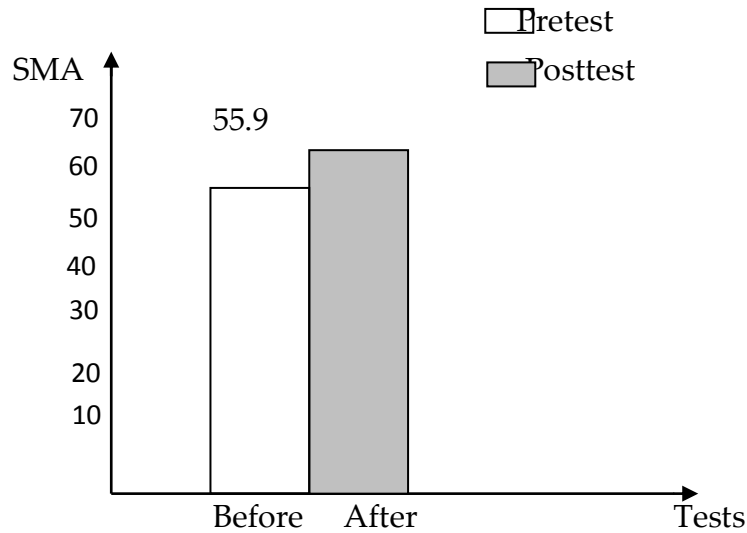
The experimental group

	Number of sample	Highest value	The minimum value	SMA	The standard deviation "T."	The calculated "T."		Statistical significance at the level (0.05)
Pre test	10	65	50	5.99	4.2	2.23	1.81	No statistically significant
Post test	10	68	55	60.2	3.96			

**Table 5:** Pre-test and post test results in improving the experimental group

Through Table (5) is clear to us that the SMA in the pre-test is 55.9 cm and standard deviation 4.2 cm arithmetic The average test posttest was 60.2 cm and standard deviation of 3.96 cm, and after the "T" account when the degree of freedom (n -1) and the level of significance 0:05 and 2:33 we found.

Compared with the "T" spreadsheet which is equal to 1.81, we find that the "T" calculated larger than the "T" spreadsheet which shows that the results are statistically significant and therefore there were no significant differences in function.



**Histogram 5:** Results of the pre-test and posttest in the upgrading of the experimental group

### C. Offensive Denial

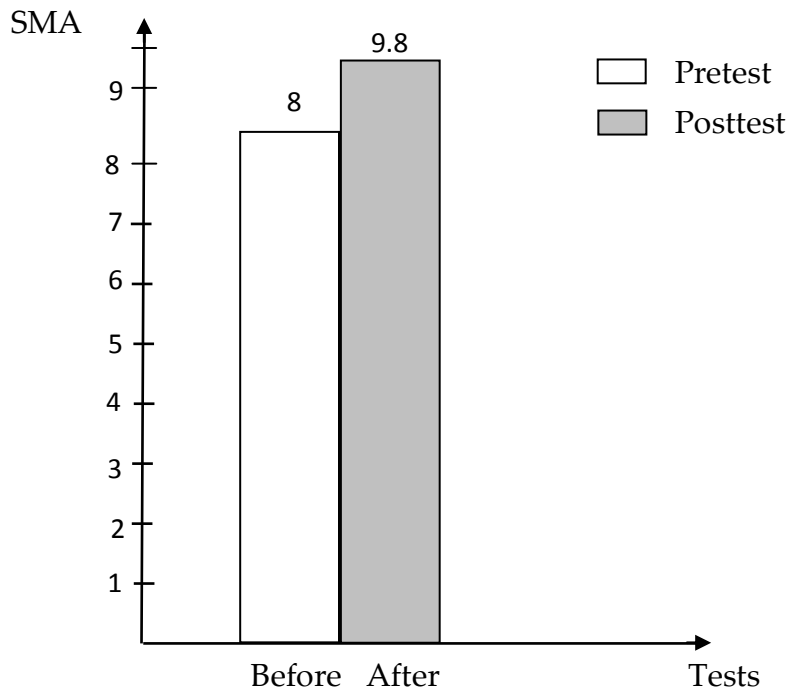
The Experimental Group

	Number of sample	highest value	The minimum value	SMA	The standard deviation "T."	The calculated "T."		Statistical significance at the level (0.05)
Pre test	10	10	7	8	1.05	3.67	1.81	Statistically significant
Post test	10	12	8	9.8	1.03			

**Table 8:** Pre-test and post the results in the test offensive block experimental group

Through Table (8) is clear to us that the SMA in the pre-test is 8 points and standard deviation 1.05 points and the arithmetic average of the test posttest was 9.8 points, standard deviation 1.03 points, after the "T" account when the degree of freedom (n -1) and the level of significance 0:05 we found 3.67.

Compared with the "T" spreadsheet which is equal to 1.81, we find that the "T" calculated larger than the "T" spreadsheet which shows that the results are statistically significant and therefore there were no significant differences in function.



**Histogram 8:** Results of the pretest and posttest in the test offensive block experimental group

## 5. Discussion of the Results

In the context of the subject of our research, which deals with the study of the impact of the training units in the development status of resistance to improve the block's performance in volleyball (15-18 years) and through the obtained results as a result of the tests, which included a test jump forward test upgrading to measure the explosive power of the two men and a test block. to measure the block skill against beatings overwhelming, and used with the two witness and experimental and which codified in tables 1 to 12 and we will discuss the results obtained in the light of the hypotheses raised and the statistical analysis of the latter in an attempt to highlight some of the key factors that have income in determining the results obtained, which may contribute to understand the mystery that revolves around it.

The results obtained by the experimental group in the test jump forward were as follows in the tribal choice as a result of 6.15 m average arithmetic In the post-test was the result of 7.18 meters on average arithmetic to occur significant differences were statistically significant in favor of the "T" calculated on a "T" Driven ( $4.68 > 1.81$ ). Unlike the control group, which was the results in this test and in the pre-test result of 6.02 meters on average arithmetic As for testing the dimensional result of 6 meters on average arithmetic and this explains the lack of significant differences in favor of the "T" calculated a function of (T) Driven ( $0.24 < 1.81$ ).The improvement signifier and thus

morally experimental group and the control group to be reversed in the test jump forward for us highlights the impact of integrated modules to improve jump forward, making training a major role in the development of the ability to jump. What have we learned by integrating modules with the experimental group in the research, which showed a difference in improving the ability of its members to jump reverse witness her theory that have shown elements of a lack of this trait, but retreated level compared with the tribal test of the latter, which did not benefit from the training modules which makes physiological changes taking place affect the result of this group.

These results obtained in a test jump forward led us to obtain similar results in a test upgrade and resulting from the creation of significant differences between pre and post-tests function in favor of the latter for the experimental group, which is a code in the table (5) so that the group got a result 55.9 cm average arithmetic in the pre-test and the result of 60.2 cm on average my post-test to occur significant differences were statistically significant in favor of the "T" calculated on a "T" Driven ( $2.33 > 1.81$ ), while the control group received the same test on the result of 49.8 cm on average Account in the pre-test and the result of an average 50.5 cm My posttest without causing significant differences function in favor of the "T" calculated on a "T" Driven ( $0.12 < 1.81$ ), and codified in the table (4).

These results explain the impact of training modules to improve the explosiveness the ability of the two men, which merged with the experimental group in the search so that shown elements of a difference in improving the ability of upgrading Unlike the control group, which was not subject to these training modules and shown elements best proof of this so we saw low levels compared with the group Experimental.

Through the results obtained experimental group, which made a significant difference function and subject to the training modules built-in test jump forward and that helps to win the explosive force of the two men which gained considerable resistance and thus force in endurance and this is consistent with the general hypothesis of this research, which states that there are differences statistically significant between the two groups and a trial witness subject to the training modules built-in recipe development of resistance.

The results of the upgrade, which depends particularly on the strength of two men and what happened from the significant differences function for the experimental group and rely on previous results, which stipulates the health of the general premise, all confirm the hypothesis which states that the development of the recipe resistance affects the ability of upgrading, which would be consistent and study Alam Hamza



(Master) Note under the title: the effect of improving the recipe to accomplish bulwark in volleyball at students in secondary phase (15 to 18 years). Where put wondered over the impact of a recipe upgrade to accomplish bulwark concluded hypothesis raised and the stability of their health and states the hypothesis that evolution recipe upgrade affects the performance of the technology block.

The results obtained in the test offensive and defensive block the group's witness and that any significant differences function did not occur unlike the experimental group that have shown elements of the emergence of significant differences function and thus observe the impact of integrated modules to develop a recipe resistance and improve the block technique that is what validates the hypothesis which states that the development of resistance to the recipe volleyball player effectively impact in improving the block technique. These results obtained, which proves to some extent a correlation between the resistance and prescription technology block and the impact of training modules can be considered satisfactory, although there are some factors that affect these results absence recipe resistance affects the block technique. These results can be considered the beginning of the road to the most comprehensive studies Where can we address the all the factors that contribute to the improvement of the technology block volleyball player.

## 6. Conclusion

Among team sports sport volleyball, which is among the most popular sports in the world, for the role they play in alleviating the psychological pressures of daily, and has passed through several stages evolved in many ways, their laws, the way to play, concept, the popular perception of her, as well as the multiplicity of ways and methods of training, in order to prosper and reach the level and success of volleyball was required special programs to attract children number an enormous inadvertently make sports world number one, and this explains the entry of the Olympic Games early Nonetheless basic cryptographic did not lose a game to keep fit.

Raise the physical level of volleyball players should be based on scientific rules and peculiarities applied rigorously and mastery, Achieving good results and raise the performance level of players is not a coincidence but it is closely linked to the scientific means and methods the smooth running of the train because the latter is of extreme importance to the development of the physical abilities of each athlete, which leads to raise the level of sports, then the situation is the result of training up to repeat the training.

The ball flight as you know depends on the good ability to enhance both when carrying out the attack or block the latter requires the player rise well above the network to facilitate and master the rollback process is good, good upgrading means having an explosive force of the two men require each player to improve this trait (upgrading) which is the result of the development status of physical qualities in volleyball, a resistance, and the results obtained, which showed significant differences were statistically significant only evidence of the impact of resistance on the ability of upgrading and the importance of compact and impact of training modules on the status of the resistance, so it was chosen category (15-18 years) and that have the specifics of which leads us to apply the training modules for the development of resistance and recipe related to the improvement of technology block and depending on the results obtained in the block tests, we found that:

1. Built-in modules have an impact on the status of development of resistance;
2. Description of the development of resistance affects the improved block technique.

## References

1. Abou el Ela Ahmed Abdolfateh, Ahmed Nasreddin (2003). The physiology of fitness, Dar Arab Thought, Cairo
2. Mohamed Subhi Hassanein, Hamdi Abdel-Moneim (1997). The scientific basis for volleyball and measurement methods, the book publishing center, Egypt.
3. Abdul Hafeez (1993). Statistics psychological and educational measurement, the Office of University Publications, Algeria.
4. Ali Mustafa Taha (199). Volleyball, History, Learning, Training Act, Dar Arab Thought, 1st Floor, Cairo.
5. Qassim Hassan Hassanein (1987).The Nassif: knowledge of sports training, National Library for the printing and publishing, Iraq.
6. Bernard Terpin (1986). Préparation et entraînement du footballeur, Edition Anphora, Paris
7. Charles. H.C, Pelletier (1986). Cahier de l'entraîneur, Canada.
8. Jean-Michel Palau (1985). Sciences biologiques de l'enseignant sportif, Edition Vigot, Paris.

Hamani Brahim, Mazari Fatah, Mansouri Nabil, Bouhadj Meziane, Kasmi Bachir  
THE IMPACT OF THE PROPOSED TRAINING PROGRAM IN THE DEVELOPMENT OF  
RESISTANCE RECIPE FOR IMPROVING THE PERFORMANCE OF THE SKILL BLOCK FOR VOLLEYBALL  
PLAYER'S - EXPERIMENTAL STUDY ON THE SCHOOL TEAM (15-17 YEARS)

---

Creative Commons licensing terms

Authors will retain the copyright of their published articles agreeing that a Creative Commons Attribution 4.0 International License (CC BY 4.0) terms will be applied to their work. Under the terms of this license, no permission is required from the author(s) or publisher for members of the community to copy, distribute, transmit or adapt the article content, providing a proper, prominent and unambiguous attribution to the authors in a manner that makes clear that the materials are being reused under permission of a Creative Commons License. Views, opinions and conclusions expressed in this research article are views, opinions and conclusions of the author(s). Open Access Publishing Group and European Journal of Physical Education and Sport Science shall not be responsible or answerable for any loss, damage or liability caused in relation to/arising out of conflict of interests, copyright violations and inappropriate or inaccurate use of any kind content related or integrated on the research work. All the published works are meeting the Open Access Publishing requirements and can be freely accessed, shared, modified, distributed and used in educational, commercial and non-commercial purposes under a [Creative Commons Attribution 4.0 International License \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/).