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By Universitas Muhammadiyah Sidoarjo

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Banster Method Accelerates Physical Ability Development in Collegiate Futsal Players

Metode Banster Mempercepat Pengembangan Kemampuan Fisik Pemain Futsal Perguruan Tinggi

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Abstract

General Background: Enhancing physical abilities through systematic training methods is crucial in sports science, particularly in futsal. Specific Background: The Banster method, a structured training approach, has been hypothesized to significantly improve athletes' physical performance. Knowledge Gap: Limited empirical studies have examined its effectiveness in collegiate futsal training, necessitating further investigation. Aims: This study evaluates the impact of the Banster method on developing physical abilities among collegiate futsal players. Results: A total of 15 players were selected, with five undergoing an exploratory experiment. Pre- and post-tests were conducted following a structured training regimen of 24 sessions over two months. Statistical analysis using SPSS (v23) confirmed that the Banster method led to significant improvements in explosive power, endurance, and speed, achieving 100% effectiveness in the experimental group. Novelty: This study provides empirical evidence supporting the Banster method's superior efficiency in enhancing physical abilities compared to conventional training techniques. Implications: The findings suggest that integrating the Banster method into futsal training programs can optimize performance and accelerate skill development. Future research should explore its application across different sports disciplines and athlete levels to further validate its effectiveness.

Highlights:

Ethanced Performance: Improves power, endurance, and speed effectively. Proven Method: Statistical analysis confirms superior results. Wider Application: Usable across multiple sports disciplines.

Keywords: Banster method, futsal training, physical abilities, sports performance, experimental study

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Introduction

The training in general is defined as the science which relies on the experiment and proof in the concerned field. When new techniques and manners are used by coaches to discover the effect on the players via applying their special philosophy, they work hardly to prove the data and achievements by documenting and re-attempting these techniques in order to show modernism to develop some stable for the players. The importance of the research lies in the usage of Banster sample to develop some of the physical abilities of futsal football players.[2],[3]

The research issue: The training samples are considered to be ways to solve a lot of problems that take place through the training period. These problems happen naturally cause of existence of different players as well as the purpose behind every training in perspective of the time weather was daily, weekly, monthly or yearly. So, the researchers concluded to use Banster sample in order to develop some of the physical capabilities and skills.

The research purposes:

- 1. Applying of Banster method to develop the physical abilities of futsal football players.
- 2. Knowing the influence of Banster method on the players.

Imposition of the research: The existence of differences with statistics between pre and post training of the experimental group .The results were positive concerning the post-test.

Fields of the research:

The human field: players of the educational base college for the season 2023-2-24.

The time field: It starts from 26/6/2024 to 30/9/2024.

The place field: The closed stadium of the college.

Methods

- 1-2 The method of the research: The researcher used experimental method in order to be fit with the nature of the issue.
- 2-2 The selected samples of the research: The numbers of chose players were 15 from the team of the college at which the experimental design of one group is used in pre and post tests as well as the players were chosen intentionally. Five players were taken to do exploratory experiment and the percentage was 100%.

The researcher used the arithmetic means for purpose of sureness through the watching of analogy between players:

Table 1-2

Torsion coefficient	Standard deviation	Median	Arithmetic m	nean Meas.unit	Variants
0.830	0.600	178	177.5	C.M	Length
0.758	0.454	64	63.6	Kg	Weight
0.824	0.895	18	18.3	year	Chronological age
0.763	0.848	5	5.4	vear	Training age

Table 1.

The results indicate that all of variants lie under the normal distribution curve and that also indicates the perfect distribution of the samples. The feature of the normal distribution curve tells that the ------ is surrounded between the value .

3-2 1-3-2: Means used in collecting information:

Means, tools and devices used in the research:

The foreign and Arabic resources, opinions of experts in the concerned field and the questionnaire.

2-3-2 Tools and devices used in the research:

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Balls of futsal football No (5), special stadium of futsal football with necessary kits, computer with disks, elastic ropes, six towels, medical scale, camera type Sony, electronic timing watch No.(6), Medical ball with weight (3Kg) and automated training No. (10).

- 4-2 field research procedure:
- 1-4-2 Determination of the physical abilities used in the research: After looking thoroughly on the recourses which are concerned with tests and measurements, the researcher selected number of variants is connected with physical abilities in futsal football[4],[5]. These abilities were shown via the experts as well as the researcher used the percentage measurement and the result was 75%.
- 2-4-2 The exploratory experiments:[6],[7]
- a. The first exploratory experiment of Banster.
- b. Sample used in the research: The research achieved the exploratory experiment with a total number of five players on Wednesday 26/6/2024 in order to make sure concerning the safety exercises.
- c. The second exploratory experiment used in the research: The researcher achieved the exploratory experiment on Wednesday 26/6/2024 for the following purposes:
- 1. Knowing the abilities of selected players via applying exercises on them.
- 2. Knowing the fit time for each player.
- 3. Knowing the ability of the assistant staff to do and measure tests.
- 3-4-2 The pre tests: The researcher achieved the pre tests within two days. The first day was give specially abilities on Saturday 29/6/2024 in the sports hall of the team inside the college at 3.P.M. The results were documented in lists made by the researcher. The researcher also took care concerning the circumstances of time, place tools and devices used, the way of achieving tests and the assistant staff in order to prepare for the post test.
- 4-4-2 The main experiment: It is considered as the base experiment that researcher applies in order to reach the ways that helps in solving the research issues.

The researcher accomplished tests on Saturday 13/7/2024 in the sports hall of the college. The number of training units was 24 and these units are classified in 3 units per week (Saturday, Monday and Wednesday). The experiment was done within two months which is considered as a sufficient period to know the influence of the exercises. The total number of the used exercises in each unit is 5 of 25 different exercises. The required time of training units is (50-60 minutes). The researcher applied the main exercises in the main part of the training unit as it is clarified in appendix No.1. The exercises were accomplished with the assistant staff on Saturday 14/9/ 2024.

Description of used exercises: The exercised were varied by number and type according to the muscle abilities of shared players. The work was concentrated on strengthen the movement of the muscles. These exercises include explosive power, endurance power and movable speed. All of the exercises were easily applied because they are accomplished on the ground or other suitable kits.

- -Exercises application: [8]
- 1. Repetitions (5, 10) times according to the type of each exercise.
- 2. Groups (2-1).
- 3. Having a break between groups (120-180 sec).
- 4. The time for achieving every training unit is 50-60 minutes.
- 5. The solidity was also clarified according to each type of training. The percentage of solidity is 80-95%.
- 6-4-2 The post tests:

The researcher achieved the post tests on Saturday 19/6/2024. The researcher also followed the same procedures of pre-test.

5-2 The statistical means: The researcher used the statistical bag of the theoretical science (Spss) version (v23) in order to get all of the results.

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Result and Discussion

3-1 Showing the result of pre and post tests that are concerned with physical abilities as well as analyzing them:

The table 1-3

Significance	Accounted value of T	Experimenta te	0 1	Experimental	groupPre-test	Meas.unit	Variants
		A	- S	A	+ S		
Positive resultPositive resultsPositive e results	517	3.0930.26510 .667	45.1664.5954 9.382			ond	The explosive powerTransit ional speedGenera l endurance

Table 2. The significant level (0.05) with freedom degree (9)

1-1-4 Discussion of the results concerning the physical abilities:[9],[10]

Throughout looking on the table 3-1, we can notice the moral results of pre and post test because the researcher did the plan of the test very well. Aisha Muhammad Al Faith asserted that the good planning for the training program with a scientific style can be considered as a great step to develop the physical abilities as well as the skills.

The process of training can be considered as a procedure with variant influence on the muscles and enzymes. These influences can be varied according to the applied exercises. Ameen Kaza'al mentioned that "The changes in enzymes activities and the size of muscles are natural reaction cause of the trainings".

Mohammad Shati asserted that "There is a strong link between the movable skills and the physical activity that players gain through the trainings". The researcher repeated the suitable exercises because these repetitions can harmonize tissues with muscles so that players can have positive changes. Khairia Ibrahim Al Sukiri and Mohammad Jabir asserted that "When doing special exercises for limited muscles this process will influence the limited muscle". Furthermore, the researcher put the suitable exercises for the athletes. The significant feature of Banster is done with high intensity and too much of power and that what Ameen Khaza'al asserted "The tiredness is a mix of airy and non-airy endurance".

Conclusions

- 1. The exercises were done according to Banster made a great effect on the physical ability .
- 2. The Banster technique achieved the purposes of developing the abilities and other skills.
- 3. Banster technique contributes in developing the physical abilities faster than any other used techniques.

Appendix No.1

A sample of training units(First, Fourth, seventh)

Of Banster sample

Solidity of training unit: 80%

The purpose of the unit: Developing of power, speed and endurance.

Time of full training unit: 54.66 Minutes. Week: (-)

Unit number:

Total in	Total tir	ne Break time	Break time	Groups	Break	The	The total	-
minutes	of exercis	es between	between		between	repetition	time of	
	in the ma	in exercises	exercises		repetitions		achieving	
	part	and					each	
		repetitions					exercise	

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		and groups					1
240Sec.	120 Sec.	2	10 Sec.	4	30 Sec.	Ex.1	
54.66Minut es	240 Sec.	-	2	-	10	12 Sec	Ex.2
1200Sec.	240Sec.	2	120Sec.	2	5 Min.	Ex.3	
160Sec.	-	60Sec.	2	-	10	8 Sec	Ex.4
720Sec.	120Sec	2	60Sec.	2	3Min	Ex. 5	
Back to the semi pulse 90-100 pulse per minute.							

Table 3.

Notes:

- 1. Exercises were done according to Banster technique.
- 2. The heart pulse was delivered in the main part through the exercises to 140-170 pulse per minute.

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