

Analysis of Jump Height of 2022 PJKR UNIBA Study Program Students

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Abstract

This study aims to analyze the high level of student disruption. The type of research used in this study is quantitative, the method used in quantitative research is descriptive data. The results of the analysis of high jump data for the male category showed a good percentage of 46%, perfect 28%, and very good 28% and the female category with a good percentage of 50%, perfect 25%, sufficient 12%, and lacking 12%. Therefore, it can be concluded that the average results of the 2022 male and female student high jump training are in the sufficient category.

Keywords: jump height; analysis; students

INTRODUCTION

Sport is a physical activity that involves physical strength, physical skills, and the psyche of students which has an impact on improving physical and spiritual quality (Aditia, 2015) It can be designed and arranged systematically (Mudhofir, 2021) In a relatively complex competitive activity, it includes personal pleasure and external benefits.(Millah et al., 2018)

Basically, sports have an important role in external benefits that can have an impact on body health and increased productivity. In general, body productivity refers to efficiency in carrying out physical functions that support individual health and performance.

In sports, increasing athlete productivity, especially in big ball games, has a great influence on improving physical health and mood (Santoso, 2016). Big ball games also include: basketball, soccer, and volleyball.

In volleyball there are basic techniques consisting of: passing, serving, blocking, and smashing, in the basic smash technique in volleyball, the student's jump greatly influences the smash results. In other words, the smash results are obtained from increasing the height of the jump which can occur through the strength training process (Arizal & Lesmana, 2019).

Therefore, many previous studies have proven that there is a link between jump height and other motor skills (Siembida et al., 2021) Namely, by practicing consistently so that the leg muscles will become stronger, which helps increase the athlete's potential jump height (Zauharudin et al., 2023).

One way to increase the potential for high jumps is with a vertical jump movement training pattern that requires maximum coordination and skills (Yusuf et al., 2022) Maximum coordination and skills depend on stability and balance, so that athletes can perform movements safely and stably without the risk of injury. From the explanation above, the data on the jump height of students from the 2022 intake is attached.

METHOD

This type of research uses a quantitative method with descriptive. This research was conducted at Universitas PGRI Banyuwangi on October 20, 2024. It was aimed at determining the jump height of all students of the 2022 batch of the PJKR study program through sampling using population sampling techniques. The research instrument used a vertical jump tool - MD. Data analysis used the vertical jump test norm approach.

Table 1. Norms of vertical jump test

Ketentuan Nilai			
Score	Man	Criteria	Women
5	>70	Perfect	>48
4	62-69	Excellent	44-47
3	53-61	Good	38-43
2	46-52	Enough	33-37
1	38-45	Deficient	29-32

(Nugroho & Yuliandra, 2021)

RESULT

Based on the data collection, the jump height of the 2022 intake of students from the PJKR study program through the vertical jump test can be seen in the table below:

Table 2. Results of data analysis of *vertical jump height* with the male *normative value method*

Men's vertical jump test results			
No	Name	Score	Criteria
1	AL	3	Good
2	AA	3	Good
3	FA	3	Good
4	GW	5	Perfect
5	IS	3	Good
6	AIS	4	Excellent
7	AG	5	Sempurna
8	NH	4	Excellent
9	DN	3	Good
10	WA	4	Excellent
11	ZT	5	Perfect

Based on the analysis of the vertical jump test data for male students of the 2022 class, it shows that the jump height of students with a good percentage is 46%, perfect 28%, and very good 28%. Therefore, it can be concluded that the average results of the 2022 male students' jump height training in the volleyball sport are in the sufficient category because only 3 students meet the average volleyball jump height standard. Therefore, it is necessary to have training that supports the power of the leg muscles in order to achieve even better performance.

Table 3. Results of data analysis of vertical jump height with the female normative value method

Women's vertical jump test results			
No	Name	Score	Criteria
1	ANG	1	Deficient
2	BG	3	Good
3	ES	3	Good
4	EL	3	Good
5	ER	3	Good
6	NN	5	Perfect
7	RPM	2	Enough
8	TS	5	Perfect

Based on the analysis of vertical jump test data for female students in the 2022 intake, it shows that the jump height of students with a good percentage is 50%, perfect 25%, sufficient 12%, and lacking 12%. Therefore, it can be concluded that the average results of the 2022 female students' jump height training in the volleyball sport are in the sufficient category because only 2 students meet the average volleyball jump height standard. Therefore, it is necessary to have training that supports the power of the leg muscles in order to achieve even better performance (Nugroho & Yuliandra, 2021).

DISCUSSION

This study aims to analyze the jump height of 2022 students of the PJKR study program against the results of the jump height in the sport of volleyball. In the sport of volleyball, there is a quality of physical expertise of an athlete which is used to stabilize physical conditions while playing (Bahauddin & Sulistyarto, 2022) Focusing on the level of physical condition where a player is required to be able to make fast movements such as: jumping, running, stepping front and back (Usman & Argantos, 2020) In a coordination of movements when playing an athlete needs a healthy body which includes agility, endurance, strength, coordination, and flexibility (Sari & Guntur, 2017).

However, in addition to mastering basic techniques, a volleyball player must have excellent jumping ability because it will be useful and supportive when the player is defending or blocking and smashing (Aguss et al., 2021) This proves that body shape also affects the jump height of students from the 2022 PJKR study program.

One of the factors that contribute to the increase in the height of the student's jump is body type (somatotype), where somatotype measurement is needed in the process of selecting and nurturing athletes because each sport requires conformity with the comparison or consideration of body type. The somatotype of athletes in certain sports has different and specific characteristics (Penggali et al., 2016).

This is very relevant considering that the height, weight, and body shape of students are certainly different, so that excessive or insufficient food intake will cause changes in body composition, namely an increase or decrease in body weight, body fat percentage and muscle mass (Setiowati, 2014). Therefore, the

importance of increasing muscle mass in students in the volleyball branch with regular training.

CONCLUSION

Based on the research conducted, it is known that the jump height of the 2022 batch of PJKR study programs in volleyball generally still does not meet the criteria for both male and female students. From these results, it is concluded that additional training is needed that is more focused on increasing leg muscle strength to support the potential for high jumps. Exercises such as vertical jumps can help increase jumping power. In addition, somatotype or body type factors play an important role in supporting athlete performance in volleyball. Students are advised to maintain an ideal body composition through balanced nutritional intake and regular physical exercise, in order to support more optimal achievement in the future.

ACKNOWLEDGMENT

The author would like to thank all parties who have provided support in writing the article. Not to forget, thanks to colleagues who have provided input and hopefully this article on the analysis of the jump height of 2022 students in the sport of volleyball will provide a positive contribution to all groups, both students, the community, and volleyball athletes.

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