

Analysis of Student Reaction Levels Physical Education Health and Recreation Class 22A PGRI Banyuwangi University

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Abstract

This analysis uses descriptive quantitative methods to reflect the level of reaction of students in Physical Education, Health, and Recreation class 2022A PGRI Banyuwangi University, the aim of this research is to determine the level of reaction of class 2022A students, The research sample was students of Physical Education, Health and Recreation at PGRI Banyuwangi University class 2022A using the Sample Population Sampling Technique with a total of 19 students. This research instrument uses a whole-body reaction test. The results show that students are in a good category, with a percentage of men (63.6%) and women (75%). The conclusion of this research is that it is necessary to further increase the level of reaction in students from the Faculty of Sports and Health, PGRI Banyuwangi University class of 2022A so that maximum results can be achieved.

Keywords: reaction analysis; student; whole body reaction test

INTRODUCTION

In the context of sports, especially among students at the Faculty of Sports and Health, reaction is very important. (Mustain & Akbar, 2021) Reaction speed is an individual's ability to respond to optical (eyes), tactile (skin), and acoustic (ears) stimuli. Reaction is a person's ability to respond to stimuli or stimulation quickly and precisely. This could be a response to sound, light, or movement occurring around you. (Ageng et al., 2020) Speed is one of the motor components that is very necessary in every sport. Speed is one of the motor components that is very necessary in every sport. Speed not only involves the entire body's speed but also involves the reaction time made by a player to a stimulus so that we can know a person's speed (Komarodin, 2018).

Therefore, it is very important for every sports student to have a level of reaction speed. Reaction speed has several components that every sports student needs to learn.

(Ramadhan & Supriatna, 2023) Sensory components that are coordinated with reaction time are light, sound, touch, and sight. In these coordinated sensory components, there are certain stimuli that influence reaction time. The process from receiving stimuli to executing body movement is a series of stages involving the senses, nervous system, and muscles, stimulation is first received by the senses transmitted to the brain for analysis, and finally produces body movement in response to the stimulus. (Anum Nasriani, 2019) By inserting a stimulus or stimulus through the senses that receive the stimulus (skin, ears, and eyes) until movement occurs in the limbs, hands, or feet, the reaction speed ends. (Puspita et al., 2023) Stimuli can be light received by the senses, touch received by the

skin, and body position received by the athlete, body balance. This component plays a role in students' ability to master several sports in this course.

Reaction is very important in various sports, including football, volleyball, pencak silat, basketball, and others. Reactions can be trained and improved through agility and concentration exercises. Boxers react to their opponents with speed and strength, which is called reaction time. This is an example of a combat sport that requires reaction time (Pratama & Gandasari, 2023). It is known that reaction time is also influenced by several factors, namely gender, age, IMT, dominant use of the right or left hand, type of stimulus, smoking, alcohol consumption, and exercise (Syafitri et al., 2017).

The output of reaction speed can be measured as reaction time. It is known that reaction time is very important for recreational sports and health sports (Pratama & Gandasari, 2023).

Reaction speed has a very important role in students mastering several sports in the course. Based on research conducted.

METHOD

This research method uses a descriptive quantitative research method to obtain numerical data that describes the level of reaction. The data collection technique uses tests and measurements using whole body reactions, which were carried out in the fitness room at PGRI Banyuwangi University on September 26 2024. The sample in this research was 2022A class sports students at PGRI Banyuwangi University with a total of 19 students. This research sampling used a population sampling technique.

The data collection technique used is a norm analysis approach as in the table below:

Table 1. Norma's whole-body reaction

CRITERIA	GRADE
Special	0.001 – 0.100.
Very Good	0.101 – 0.200.
Good	0.201 – 0.300.
Fair/Medium	0.301 – 0.400.
Not Enough	0.401 – 0.500.
Very Little	0.501 – To the top.

(Maghfuri, 2017)

RESULT

Data from the researchers' analysis were used to determine students' reactions using a whole body reaction tool with a normative calculation method, where each sample was calculated through an assessment category.

Table 2. Banyuwangi University Class of 2022 Male Student Test Results

NO	NAME	SCORE	CRITERIA
1	N	0.138	VERY GOOD
2	A	0.185	VERY GOOD
3	G	0.190	VERY GOOD

4	Z	0.193	VERY GOOD
5	F	0.219	GOOD
6	W	0.212	GOOD
7	A	0.264	GOOD
8	I	0.246	GOOD
9	I	0.240	GOOD
10	G	0.241	GOOD
11	D	0.297	GOOD

It can be seen from the table above that the results of calculating the reaction level of students at the Faculty of Sports and Health, PGRI Banyuwangi University class of 2022 A show that the reaction level of these students is a good percentage of 63.6%, very good 36.3%, so it can be concluded that the results of the reaction level of Faculty students Men's Class of 2022 Sports and Health A are in a good category. So there is a need for training to improve the reaction of students from the Faculty of Sports and Health, PGRI Banyuwangi University class of 2022A to improve the ability of sports students to respond to external stimuli quickly and precisely.

Table 3. Banyuwangi University class 2022 A female student's test results

NO	NAME	SCORE	CRITERIA
1	N	0.036	SPECIAL
2	E	0.256	GOOD
3	E	0.275	GOOD
4	E	0.298	GOOD
5	B	0.264	GOOD
6	A	0.255	GOOD
7	T	0.231	GOOD
8	R	0.309	ENOUGH

The table above shows that the reaction level of students from the Faculty of Sports and Health, PGRI Banyuwangi University class of 2022 A has a good percentage of 75% and an excellent percentage of 12.5%. Therefore, it can be concluded that the reaction level of female students in class 2022 A is in a good category. To ensure that students from the Faculty of Sports and Health, PGRI Banyuwangi University class of 2022A have the ability to respond to external stimuli quickly and precisely, training is needed to increase students' reaction levels.

In summary, it can be concluded that the data above shows differences in reactions between male and female students who are almost in the same category. And you also need to know that increasing agility is a factor that supports reaction speed. (Samodra, 2021) The next hope regarding the results of this test is for students from the Faculty of Sports and Health, PGRI Banyuwangi University class of 2022A. The category results achieved will increase further in the future.

DISCUSSION

The results from the table above show that 63.6% of sports education students showed a good reaction, while 36.4% were very good, and the female students showed a reaction of 75% good, 12.5% special, and 12.5% fair. It can be concluded that sports students and female students have good reaction speed because it is closely related to coordination and technical skills as well as concentration to make quick and correct decisions in moving so that it is needed in almost every sport, the need for reaction speed in sports also chooses athletes' motor skills so that always move according to orders (Wiyaka & Mawardinur, 2023). So the reaction level is an important aspect of athlete performance, including among sports students (Anindita et al., 2017).

In some studies, percentages related to reaction ability may be given based on the performance classification, reaction less than 200 ms (10-15%) shows very good performance, reaction between 200 ms to 250 ms (, 30-40%) indicates a good performance reaction, a reaction between 250 ms to 300 ms (40-50%) indicates average performance, and a reaction of more than 300 ms (10-20%) indicates poor performance.

Based on the explanation above, reactions are very important for sports students. Sports students are faced with competitive conditions that require them to have good reaction speed. The difficulty of training reflexing and speed movement, two problems often faced by several sports, training with a wall body reaction tool can also improve visual abilities (Ismalasari et al., 2024). Good reaction speed can be seen through the wall body reaction tool by showing the percentage of values that match the benchmark. Good reactions can easily change body position while maintaining neuromuscular coordination, speed, and balance (Puspitasari & Purwokol, 2020). Therefore, reaction speed has an influence in every sport, this is because every sport requires a reaction when carrying out a movement. (Arlin Mahendra et al., 2024) Of course, body reactions are really needed to carry out movements such as the libero position in volleyball which is responsible for receiving the ball, defending, and arranging defensive formations.

CONCLUSION

Based on the research and results of the discussion presented by the researchers above, it can be concluded that sports students at PGRI Banyuwangi University have good reaction speed in measurement tests using whole body reaction instruments.

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