

The Effect of Intermittent Fartlek Training On The Aerobic Endurance Ability of Extra-Curricular Basketball Players At SMAN 1 Blega

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ABSTRACT

This study aims to analyze the effect of Fartlek Intermittent training on the aerobic endurance abilities of extracurricular basketball players at SMAN 1 Blega. The method used is quantitative research with an experimental approach, using a one-group pretest-posttest design. The research sample consisted of 20 students selected from the student population who were active in extracurricular activities. Data was collected through initial testing (pretest) and final testing (posttest) to measure changes in aerobic endurance ability after exercise treatment. The results of the analysis showed that there was a significant difference between the group that underwent Intermittent Fartlek training and the control group, with a significance value of 0.017 ($p < 0.05$). This research concludes that Intermittent Fartlek training has a positive influence on increasing the aerobic endurance ability of extracurricular basketball players at SMAN 1 Blega.

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AUTHORS' CONTRIBUTION

A. Conception and design of the study;
B. Acquisition of data;
C. Analysis and interpretation of data;
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INTRODUCTION

Sports are activities to maintain and improve physical fitness (Majid, 2020). According to Deva Friandika (2010), sports as part of a culture of life have long been considered the right way to improve health. Basketball is a sport played by two teams, each consisting of five players. The main objective of the game is to score points by putting the ball into the opponent's basket. According to Oliver (2007), "basketball is one of the most popular sports in the world." This game can be played on an open field (outdoor) or in a closed space (indoor), with the international standard field size being 28 x 15 meters. This sport requires planned, structured physical activity and involves repetitive body movements. In addition, this sport is also popular with various groups of

people to channel hobbies, maintain health, rehabilitation, and achieve achievements, with the main goal of improving physical fitness. (Setiawan et al., 2023: 433).

Basketball is a sport played using 2 baskets and a ball, with dribbling and shooting techniques played in groups. This sport is not only fun but also offers various health benefits, such as improving physical fitness and endurance, developing social skills through teamwork, and improving concentration and focus (Pelawi, 2020). This study provides a significant contribution. Students at the high school level generally do not have a structured training program, especially in developing the Effect of Intermittent Fartlek Training on Aerobic Endurance Abilities of Extracurricular Basketball Players at SMAN 1 Blega. This study also aims to fill the gap in training methods with a more targeted, scientifically based approach that is easy to implement in the school environment (Supriani, 2024). Students' ability to perform Intermittent Fartlek Training on Aerobic Endurance Ability. Therefore, sports teachers and coaches need an approach that focuses on developing physical strength as a basis for mastering techniques. Through this study, it is hoped that an effective and efficient arm muscle strength training method can be found, so that students are able to perform well in developing student skills, especially in the context of physical education at the high school level. This topic was chosen based on the need to improve the quality of students at SMAN 1 Blega (Nuryanto). Referring to this fact, the author intends to conduct a study entitled: The Effect of Intermittent Fartlek Training on Aerobic Endurance Ability. Based on this, this study aims to improve the accuracy of football passing results included in extracurricular activities at SMAN 1 Blega. (Saputra D. I., 2022) This study is expected to provide useful results for students and sports teachers in choosing a more effective and efficient training method to improve intermittent fartlek on aerobic endurance ability.

METHODS

Types of research

This study uses quantitative research, using an experimental approach (Ardiawan, 2022). Quantitative research is an investigation of social problems based on testing a theory consisting of variables, measured by numbers, and analyzed with statistical procedures to determine whether the predictive generalization of the theory is correct. An explanation of experimental research has been provided by Ibrahim et al. (2018), who stated that experimental research is a type of research in which researchers deliberately manipulate one or more independent variables in a certain way to see their effect on one or more dependent variables being measured. This method is the only approach that can validly test hypotheses about causal relationships in scientific research.

One of the designs in experimental research is a group pretest-posttest design, which consists of a pre-test, which is the condition of conducting observations before the experiment, and a post-test, which is the condition of conducting observations after the experiment. In this design, researchers measure the variables studied before and after

treatment is given to the group. This approach allows researchers to observe changes that occur through a comparison between the results of the initial test and the final test.

This study used an experimental design with a pretest-posttest model to determine the effect of fartlek training with intermittent on aerobic endurance ability (Nopiyanto, 2022). Before being given treatment in the form of training, an initial measurement (pretest) of fartlek training with intermittent aerobic endurance ability was carried out. After the training period was complete, a re-measurement (posttest) was carried out to evaluate the changes that occurred in fartlek training with intermittent aerobic endurance ability as a result of the treatment. To identify how fartlek training with intermittent on the aerobic endurance ability of extracurricular students in the field.

Research Site

The location of this research is at SMA N 1 Blega school, with its implementation in May 2025 and starting at 15.00 WIB by requesting a permit letter, which will be approved in advance and will be given directly to the school.

Population and Sample

A sample is part of a population that has certain characteristics or conditions. A sample is part of the entire object being studied and is considered to represent the population as a whole. Abdullah et al. (2022:92). According to him, a sample can also be interpreted as part of an object taken from a population, which is selected according to a certain procedure to represent the population. Some members of the population are called samples, which are used as a basis for concluding about the entire population. A sample is part of the data taken from a population to be used as a basis for research. The sample used in this study was students of SMAN 1 Blega in the basketball extracurricular at the school who were selected randomly.

Population is a generalization area that includes objects or subjects that have certain qualities and characteristics, which are determined by researchers to be studied and then conclusions are drawn. Abdullah, et al. (2022:91). According to him, population can also refer to the overall value, both the results of calculations and measurements, both quantitative and qualitative, which represent certain characteristics of a complete and clear group of objects. In addition, population can also be defined as the entire element that can be used to draw several conclusions, which can include The population used in this study was 20 students of SMAN 1 Blega who took part in extracurricular basketball, with several criteria, namely students who actively participated in training when the schedule was given by the coach.

Data Collection Techniques

Data collection techniques in this study involve several methods used to obtain accurate information. Researchers conducted direct observations of the activity of Effect of fartlek training with intermittent on the aerobic endurance ability of extracurricular basketball players at SMAN 1 Blega during the training session. This study lasted 2 treatment meetings and 2 meetings for the initial test (pretest) and final test (post-test). The initial test aims to obtain data used to equalize the level of ability of the

players or testees. So that the difference in results achieved by players or testees during the treatment or treatment of 4 meetings can be known.

An intermittent fartlek test on aerobic endurance ability in the field is used to measure the speed and endurance of students before and after undergoing a training program. In addition, to collect data on their training patterns, motivation, and changes felt during the training program. Documentation in the form of training records is also used to support the data collected. All of these techniques are used to ensure that the data obtained can provide a clear picture of how the influence of intermittent fartlek training on the aerobic endurance ability of extracurricular basketball players at SMAN 1 Blega.

RESULTS AND DISCUSSION

Result

Based on the research data for the Effect of Fartlek training with intermittent on the aerobic endurance ability of extracurricular basketball players at SMAN 1 Blega, with a sample of 20 students. The analyzed data can be explained below:

Normality Test

Based on the output above, it was obtained that the normality test for group 1 was obtained, namely $0.894 > 0.05$, so it was concluded that the sample used was normally distributed.

Based on the output above, it was obtained that the normality test for group 2 was obtained, namely $0.894 > 0.05$, so it was concluded that the sample used was normally distributed.

Homogeneity Test

Based on the SPSS output above, it is known that the significance value of the aerobic endurance ability variable based on group 1 and group 2 is $0.079 > 0.05$. This means that the aerobic endurance data based on the variables of Groups 1 and 2 have the same or homogeneous variance.

T-Test (Independent Sample T-Test)

Based on the analysis results in the table above, it obtained 0.017 with a sig comparison < 0.05 , then sig $0.017 < 0.05$ stated that there was a real difference between group 1 and group 2.

Research Instruments

The research instrument is a sport search test, which helps identify the potential talent of athletes systematically and measurably. The implementation began with testing members of the SSB Dekade FC team at Alun-Alun Bangkalan, followed by equipment preparation and implementation of 10 sport search test items. The test was carried out alternately according to the procedure, while the results were recorded by the researcher. The collected data was then analyzed and input into the sports search website to determine the level of athlete talent.

Discussion

When the hypothesis testing has been carried out, then what is expected to be done is a discussion of the findings obtained based on the theories available from the experts. Based on the results of the analysis in the table above, it obtained 0.017 with a comparison of sig <0.05, then sig 0.017 <0.05 stated that there was a real difference between group 1 and group 2.

CONCLUSION

Based on the analysis of the research data, a significant increase was obtained in the group studied. The study entitled The Effect of Intermittent Fartlek Training on the Aerobic Endurance Ability of Extracurricular Basketball Players at SMAN 1 Blega was completed, so the results obtained were that there was an Effect of Intermittent Fartlek Training on the Aerobic Endurance Ability of Extracurricular Basketball Players at SMAN 1 Blega, as evidenced by the results of $0.017 < 0.05$, which showed a significant difference between group 1 and group 2. So it can be concluded that in this study, it was stated that there was an Effect of Intermittent Fartlek Training on the Aerobic Endurance Ability of Extracurricular Basketball Players at SMAN 1 Blega.

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