



The Impact of Shuttle Run Training on Sprint 100 Meters for Elementary School Students (9-10 Year Age Category)

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ABSTRACT

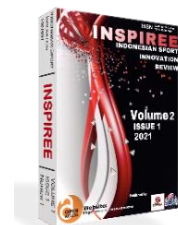
ARTICLE INFO

The purpose of the study. The background of this research is that the results of the sprint run conducted by Pahlawan Elementary School students, Bangkinang Kota are not optimal and are not appropriate in their implementation.

Materials and methods. Research Methods This research uses a pre-experimental method with One Group, namely Pre-test and Post-test Design. The data collection technique was purposive sampling with inclusion and exclusion criteria. Data analysis in this study used the Wilcoxon test, Paired Sample T-test.

Results. Research results based on the statistical output of "Test Statistics", it is known that Asymp.Sig (2-tailed) is worth 0.000. Because the value of 0.000 is smaller than <0.05. It can be concluded that "there is a significant difference between pre-test scores and post-test scores..

Conclusions. Based on the results of data analysis, description, testing of research results and discussion, it can be concluded that there is a significant effect between shuttle run training and the results of the 100 meter sprint run for the Heroes Elementary School students, Bangkinang City, with the statistical output value "Test Statistics", known as Asymp. Sig (2-tailed) has a value of 0.000. Because the value of 0.000 is less than <0.05. So it can be concluded that "there is a significant difference between the pre test scores and post test.



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INTRODUCTION

Sprint running is one of the running numbers of athletics. According to Warsidi, a sprint is a run that uses the maximum possible speed to reach the finish line (Reyes, 2013). Sprints are when all participants in a race run the entire distance that must be covered at full pace. Sprinting is divided into three categories: 100 meters, 200 meters, and 400 meters. Running was also contested in ancient Greece in several events or Olympics. The rules are also quite straightforward and represent the true identity of athletics. In contrast to the current athletic branch, both in achievement sports and in

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the learning process of physical education in schools. Athletic sports, such as sprint numbers, are taught in physical education, sports, and health classes. Sprinting is a type of running competition. The participants must run the entire distance at maximum pace. It's called sprinting because the goal is to go as fast as possible from start to finish. Sprint running is an example of an athletic sport that falls under the realm of physical education. The ability to move one's body position from one location to another fast is characterized by the 100 meter sprint.

To produce a rapid run, the body must be leaned forward, the footstep must be longer, the hand swing must be in sync with the leg movement, and the arm movements must have the fingers clinched or opened tightly and relaxed. (Henjilito, 2019).

As mentioned (Rahadian (2019)) sprint running uses the toes of the feet to tread, while the heel does not touch the ground until it passes the finish line at the commencement of the foot kick. The runner's body weight must always be somewhat ahead of his or her feet when treading, or in a forward leaning position. In sprint runners, the physical condition that must be supported is speed, because speed itself is the ability to run and move very fast (Ramadhan, 2019). Because speed is the most important factor in this race, excellent physical strength is required. According to "Egziabher & Edwards (2013)" speed refers to the muscles' ability to respond to stimuli in the lowest amount of time. Of course, there are training methods that can be used to improve the pace of the 100 meter sprint and produce the best results. The practice approach is an effective way of instilling specific habits. According to Malasari (2019) exercise is a work process that is carried out consistently and repeatedly, with the amount offered increasing as time goes on. Repetitive means that movements that were originally difficult to do become easier, automatic, and reflective in their implementation.

The shuttle run is an alternating running style that emphasizes moving the body as quickly as possible from a straight path (Marjana et al, 2014). The shuttle run exercise incorporates elements of motion, such as running while changing direction and position of the body, speed, and balance, all of which are components of agility, allowing this exercise to be utilized to enhance agility. The advantage of the shuttle run

exercise is that it emphasizes footwork, and speed plays a significant role in this activity. García Reyes (2013), said that the shuttle run has the advantage of being easier to recall psychologically, allowing athletes to focus on running speed, and if done often, athletes will become acclimated to sharp turning angles (180 degrees). Because the shuttle run exercise requires speed and agility, students can increase their speed when sprinting in the shuttle run exercise.

The researcher proposes to raise a title related to speed training on the achievement of the short start 100 meter sprint based on this background description. The pupils did not perform well in the sprint run, as evidenced by the results, because the training approach used was ineffective. As a result, study on "The influence of the shuttle run training method on the results of the 100 meter sprint run on SD Pahlawan students" is required.

MATERIALS AND METHODS

Study participants

The participants in this study were 14 male students in grades IV and V at SD Pahlawan in Bangkinang City in 2020/2021.

Study Organization

This research is a quantitative research that aims to link the quality or cause and effect. The "one group pretest-posttest" design was employed in this investigation. That is, the research design is carried out first as a pre-test, then as a treatment, and finally as a post-test. As a result, it may be known more precisely because it can compare before and after therapy (Sugiyono, 2001). This study will compare the results of the pretest and posttest of the 100 meter sprint for male students in the high grade of SD Pahlawan (Nursahid, 2017)

Testing procedure

In order to comprehend the outcomes of the 100 meter sprint, test samples and measurements will be provided. The equipment includes a running track with duct tape markings, piles/cones, a stop-watch-whistle-scorer, and a block start. Officers are in charge of measuring distances, timekeeping, and keeping score. The time unit used is the second (s). Implementation: a. The testee is prepared to squat start behind the starting line (first boundary line), b. The testee dashed to the second vats line as soon as the signal "yes" was given (finish line), c. The testee must run as quickly as possible



up to a 100-meter distance, d. The testees are allowed to repeat the procedure two times.

RESULTS

Based on the paired test, it is known that the significance value is $0.000 < 0.05$, meaning that there is a significant difference between the pre-test and post-test scores. As in the descriptive statistical table, it is known that the average running time of students during the post test takes less time than during the pre test. This means that the shuttle run training approach has a substantial impact on the results of the 100 meter sprint run for kids at Elementary School.

DISCUSSION

Running sports, particularly short-distance running or sprints, require regular and consistent training to improve time performance. Through the shuttle run training approach, exercises were carried out with the goal of enhancing the outcomes of the 100-meter sprint run for students of SD Pahlawan, Bangkinang City. Students are taught to conduct an exercise program consisting of running back and forth on a 4-5 meter track for eight times in order to improve their 100 meter sprint results and bring benefits to those who participate.

The purpose of this study's shuttle run training method is to determine the extent of students' 100 meter sprint running achievement so that they can be encouraged to enhance their abilities. Indirectly, having pupils undertake shuttle run exercises can help them improve their technique and hand-foot coordination, which will help them improve their technique, body position, hand swing, steps, and coordination in real competition. and will be able to achieve greater results in terms of time performance.

The students of SD Pahlawan, Bangkinang City, who participated in the exercise utilizing the shuttle run method for 16 meetings saw an increase in their 100 meter sprint results, according to the statistics. Shuttle run training is used to improve 100-meter sprint performance. Students at Heroes Elementary School in Bangkinang Kota Sub-district who got shuttle run training for 16 meetings saw an improvement in sprint times following treatment. The training procedure for 16 times can be said to have trained, according to Tjalick Sugiardo (1991), because it will witness a permanent increase. After conducting research, it was discovered that several factors contribute to

the improvement of SD Pahlawan students' 100-meter sprint performance. For example, Bangkinang City, among others, encourages students to do exercises even in the field to keep them comfortable and reduce the risk of injury. When practicing exercises or sprinting, though, the teacher observes all activities.

CONCLUSION

The shuttle run exercise has a significant effect on the results of the 100 meter sprint run for Heroes Elementary School students in Bangkinang City, as measured by the statistical output "Test Statistics," also known as Asymp, according to the findings of data analysis, description, testing of research findings, and discussion. Sig (two-tailed) has a value of 0.000. Because the value of 0.000 is smaller than <0.05 . So it can be said that "there is a significant difference between the pre-test and post-test scores.

The findings of this study show that the results of the pre-test and post-test running have a substantial effect. This is due to the shuttle run training approach being made available to pupils in order to improve sprinting results. The benefits obtained will be maximized with regular and well-programmed training.

REFERENCES

- Bahagia, Y. (2012). Pembelajaran Atletik. *Pembelajaran Atletik, Departemen Pendidikan Nasional*, 2–94.
- Doddy, I., Masyithoh, S., & Setiawati, L. (2018). Analisis overreaction pada harga saham perusahaan manufaktur di bursa efek indonesia. *Jurnal Manajemen*, 9(1), 31. <https://doi.org/10.29264/jmmn.v9i1.2473>
- Egziabher, T. B. G., & Edwards, S. (2013). 濟無No Title No Title. *Africa's Potential for the Ecological Intensification of Agriculture*, 53(9), 1689–1699.
- Fatchurahman, R., Sundari, L. P. R., Griadhi, I. P. A., Tirtayasa, K., Dinata, I. M. K., & Dwi Primayanti, I. D. A. I. (2019). Pelatihan Zig-Zag Run Dribbling Dan Pelatihan Shuttle Run Dribbling Sama Baik Dalam Meningkatkan Kecepatan Menggiring Bola Futsal Sma Dwijendra Denpasar. *Sport and Fitness Journal*, 45–52. <https://doi.org/10.24843/spj.2019.v07.i03.p07>
- Fitria. (2013). 濟無No Title No Title. *Journal of Chemical Information and Modeling*, 53(9), 1689–1699.
- García Reyes, L. E. (2013). 濟無No Title No Title. *Journal of Chemical Information and Modeling*, 53(9), 1689–1699.
- Goto, T., Saiki, H., & Onishi, H. (1982). Studies on wood gluing - XIII: Gluability and scanning electron microscopic study of wood-polypropylene bonding. *Wood Science and Technology*, 16(4), 293–303. <https://doi.org/10.1007/BF00353157>
- Han, E. S., & goleman, daniel; boyatzis, Richard; Mckee, A. (2019). Instrumen Penilaian Tes. *Journal of Chemical Information and Modeling*, 53(9), 1689–1699.
- li, B. A. B. (2011). *Mother of sports*. 8–27.
- Komala, R. D., & Nellyaningsih. (2017). Tinjauan Implementasi Personal Selling Pada Pt. Astra Internasional Daihatsu Astra Biz Center Bandung Pada Tahun 2017. *Jurnal Fakultas Ilmu Terapan Universitas Telkom*, 3(2), 330–337.
- Malasari, C. A. (2019). Pengaruh Latihan Shuttle-Run dan Zig-Zag Run terhadap Kelincahan Atlet Taekwondo. *Gelanggang Olahraga: Jurnal Pendidikan Jasmani Dan Olahraga (JPJO)*, 3(1), 81–88. <https://doi.org/10.31539/jpjo.v3i1.828>
- Maryono. (2014). Meningkatkan Teknik Dasar Lari Sprint dan Aktivitas Pembelajaran Dengan Menggunakan Media Gambar Pada Siswa Kelas V Sdn 06 Pematang Tiga Bengkulu Tengah. *FKIP Universitas Bengkulu*, 1–50.
- Nursahid, A. (2017). Pengaruh Circuit Sprint Training Terhadap Peningkatan Vo 2 Max Siswa Kelas Khusus Olahraga Sma 1 Tanjungsari Skripsi Diajukan Kepada Fakultas Ilmu Keolahragaan Universitas Negeri Yogyakarta untuk Memenuhi Sebagian Persyaratan Guna Memperoleh Gelar Sarjana.
- Raffly Henjilito. (2019). Hubungan Daya Ledak Otot Tungkai Dengan Kecepatan Lari Jarak Pendek 100 Meter. *JUARA: Jurnal Olahraga*, 4(2), 195–200.



- Rahadian, A. (2019). Aplikasi Analisis Biomekanika (Kinovea Software) Untuk Mengembangkan Kemampuan Lari Jarak Pendek (100 M) Mahasiswa PJKR Unsur. *Journal of SPORT (Sport, Physical Education, Organization, Recreation, and Training)*, 3(1), 1–8. <https://doi.org/10.37058/sport.v3i1.752>
- Rakhmawati, A. A. (2019). Pengaruh Kombinasi Shuttle Run Dan Bounce And Catch Reaction Ball Terhadap Peningkatan Agility Usia 10-12 Tahun Di MI Ma'arif Pademonegoro. 17–20.
- Ramadhan, K. (2019). Pengaruh Latihan Variasi Speed Ladder Terhadap Prestasi Lari Sprint 100 Meter Pada Sprinter Ukm Atletik Universitas Negeri Yogyakarta. *Journal of Chemical Information and Modeling*, 53(9), 1689–1699.
- S puriadi. (2017). Hakikat Lari Jarak Pendek. *Journal of Chemical Information and Modeling*, 8–19.
- Udam, M. (2017). Pengaruh Latihan Shuttle-Run dan Zig-zag terhadap Kemampuan Dribbling Bola pada Siswa Sekolah Sepakbola (SSB) Imanuel USia 13-15 di Kabupaten Jayapura. *Jurnal Pendidikan Jasmani Olahraga Dan Kesehatan*, 3(1), 58–71.
- Wahyuni, M. (2020). *Statistik Deskriptif untuk Penelitian Olah Data Manual dan SPSS Versi 25: Bintang Pustaka*. Bintang Pustaka Madani.
- Widhiyanti, komang ayu tri. (2016). Masase General Sebagai Pemulihan Pasif Dalam Meningkatkan Kecepatan Lari 100 Meter. *Jurnal Pendidikan Kesehatan Rekreasi*, 1, 19–26.

APPENDIX

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