

## ABSTRAK

**Dedik Supriyadi.** HUBUNGAN KEKUATAN OTOT LENGAN, KESEIMBANGAN DAN PANJANG LENGAN TERHADAP HASIL TOLAK PELURU KELAS X DI SMK MUHAMMADIYAH PACITAN KABUPATEN PACITAN. Skripsi. Pacitan: STKIP PGRI Pacitan, 2024.

Permainan tolak peluru peserta didik kelas X di SMK Muhammadiyah Pacitan masih kurang maksimal, ini dipengaruhi oleh beberapa faktor seperti kekuatan otot tangan, keseimbangan, dan panjang lengan. Penelitian ini bertujuan untuk mengetahui hubungan antara kekuatan otot lengan, keseimbangan dan panjang lengan terhadap hasil tolak peluru kelas X di SMK Muhammadiyah Pacitan.

Jenis penelitian ini merupakan penelitian korelasional menggunakan metode survey dengan instrumen tes dan pengukuran. Sampel dalam penelitian ini adalah peserta didik kelas X jurusan Akuntansi dan Keuangan Lembaga serta Teknik dan Bisnis Sepeda Motor berjumlah 25 orang. Pengumpulan data menggunakan tes kekuatan otot tangan, keseimbangan, dan panjang lengan terhadap kemampuan tolak peluru. Teknik analisis data dalam penelitian ini menggunakan analisis korelasi product moment dan analisis korelasi berganda.

Hasil penelitian menunjukkan adanya hubungan antara tiga variabel bebas dan satu variabel terikat. Hal ini ditunjukkan oleh: (1) Nilai  $r$  hitung hubungan antara kekuatan otot lengan dengan kemampuan tolak peluru diperoleh nilai 0,648. (2) Nilai  $r$  hitung hubungan antara keseimbangan dengan kemampuan tolak peluru diperoleh nilai sebesar 0,647. (3) Nilai  $r$  hitung hubungan antara panjang lengan dengan kemampuan tolak peluru diperoleh nilai 0,654. (4) Hasil analisis korelasi berganda antara kekuatan otot lengan, keseimbangan dan panjang lengan terhadap kemampuan tolak peluru diperoleh nilai  $F$  hitung  $22,710 > F$  tabel 3,07. Dengan demikian, kekuatan otot lengan, keseimbangan dan panjang lengan memberikan pengaruh pada kemampuan tolak peluru.

### **Kata Kunci:**

Kekuatan Otot Lengan, Keseimbangan, Panjang Lengan, Tolak Peluru.

## **ABSTRACT**

**Dedik Supriyadi.** *RELATIONSHIP BETWEEN ARM MUSCLE STRENGTH, BALANCE AND ARM LENGTH TOWARDS SHOT PUT RESULTS OF GRADE X STUDENTS AT SMK MUHAMMADIYAH PACITAN, PACITAN REGENCY. Thesis. Pacitan: STKIP PGRI Pacitan, 2024.*

*The shot put performance of the class X students at SMK Muhammadiyah Pacitan is still not optimal, influenced by factors such as arm muscle strength, balance, and arm length. This research aims to determine the relationship between arm muscle strength, balance, and arm length on the shot put performance of class X students at SMK Muhammadiyah Pacitan.*

*This research is a correlational research using a survey method with test and measurement instruments. The sample consists of 25 class X students majoring in Accounting and Institutional Finance, as well as Motorcycle Engineering and Business. Data collection involved tests measuring arm muscle strength, balance, and arm length in relation to shot put ability. The data analysis techniques used in this research include product moment correlation analysis and multiple correlation analysis.*

*The results of the research indicate a relationship between the three independent variables and the dependent variable. The findings are as follows: (1) The calculated  $r$  value for the relationship between arm muscle strength and shot put ability is 0.648. (2) The calculated  $r$  value for the relationship between balance and shot put ability is 0.647. (3) The calculated  $r$  value for the relationship between arm length and shot put ability is 0.654. (4) The multiple correlation analysis results for arm muscle strength, balance, and arm length on shot put ability show a calculated  $F$  value of 22.710, which is greater than the  $F$  table value of 3.07. Thus, arm muscle strength, balance, and arm length significantly influence shot put ability.*

### **Keywords:**

*Arm Muscle Strength, Balance, Arm Length, Shot Put.*