ABSTRAK

Bahauddin Syahputra Hasibuan (6203210026) "Rancangan Alas Kaki *Rubber Silicone* Ergonomis Untuk Meningkatkan Kualitas Gerakan *Squat Weight training*" (Pembimbing: Syamsul Gultom)
Skripsi : Fakultas Ilmu Keolahragaan UNIMED 2025

Olahraga kini menjadi bagian penting dari gaya hidup sehat, mendorong banyak orang untuk aktif demi kesejahteraan tubuh. Penelitian ini merancang alas kaki berbahan rubber *silicone* yang ergonomis untuk mendukung latihan beban, khususnya squat. Hasil survei pada Member Vizta Gym Plaza Medan Fair menunjukkan bahwa 91% responden merasa tidak nyaman saat melakukan squat, terutama karena kurangnya pemahaman postur yang benar, berat badan berlebih, atau masalah lutut. Melalui metode R&D, proses mencakup analisis kebutuhan, desain, pengembangan, validasi ahli, serta uji coba kelompok kecil dan besar. Produk diuji dan diperbaiki berdasarkan masukan, seperti penambahan bantalan, ketebalan, dan variasi warna. Hasil akhirnya menunjukkan peningkatan signifikan dalam efektivitas dan kenyamanan pengguna. Inovasi ini diharapkan dapat menjadi solusi bagi mereka yang kesulitan saat berolahraga, sekaligus berkontribusi dalam pengembangan alat olahraga yang lebih ergonomis.

Kata Kunci: Alas Kaki, Kenyamanan Berolahraga, Analisis Ergonomi

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ABSTRACT

Bahauddin Syahputra Hasibuan (6203210026) "Design of Ergonomic Rubber Silicone Footwear to Improve the Quality of Squat Movements in Weight Training" (Supervisor: Syamsul Gultom)
Thesis: Faculty of Sports Science UNIMED 2025

Sports have now become an important part of a healthy lifestyle, encouraging many people to be active for their physical well-being. This study designs ergonomic footwear made of rubber silicone to support weight training, particularly squats. A survey conducted at Vizta Gym Plaza Medan Fair showed that 91% of respondents felt uncomfortable while doing squats, mainly due to a lack of understanding of proper posture, excess weight, or knee problems. Through the R&D method, the process includes needs analysis, design, development, expert validation, as well as testing in small and large groups. The product is tested and improved based on feedback, such as the addition of cushioning, thickness, and color variations. The final results show a significant increase in effectiveness and user comfort. This innovation is expected to provide a solution for those who struggle while exercising, while also contributing to the development of more ergonomic sports equipment.

Keywords: Footwear, Comfort in Sports, Ergonomic Analysis

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