

## ABSTRAK

**Yoepiter Zega. Pengembangan Alat Tes dan Pengukuran Kecepatan Tendangan (*shooting*) Berbasis Sensor. Tesis. Medan: Program Pascasarjana Universitas Negeri Medan.**

Tujuan penelitian ini adalah untuk menghasilkan alat dan tes dan pengukuran kecepatan tendangan (*shooting*) berbasis sensor. Penelitian ini dilaksanakan pada atlet MTs Darul Ulum FA dan Bangsal FC pada bulan Mei 2022. Jenis penelitian ini adalah penelitian pengembangan dengan desain penelitian *Research and Development (R&D)* dari sugiyono. Penelitian ini dilakukan dengan penelitian ini dilakukan dengan 9 tahapan (1) *Research and information collecting*, (2) *Planning*, (3) *Develop preliminary form of product*, (4) *Preliminary field testing*, (5) *Main product revision*, (6) *Main field testing*, (7) *Operational product revision*, (8) *Operational field testing* dan (9) *Final product*. Populasi dalam penelitian ini dengan menggunakan atlet Darul Ulum Fc dan Bangsal FC. Teknik pengambilan sample menggunakan purposive sampling dengan uji coba tahap I yang berjumlah 15 orang atlet MTs Darul Ulum FA dan uji coba tahap II yang berjumlah 30 orang atlet Bangsal FC. Selanjutnya dari uji coba tahap I yang berjumlah 15 orang menunjukkan angka 93,16 % dengan kriteria **Sangat Layak**, kemudian dari uji coba tahap II yang berjumlah 30 orang atlet menunjukkan angka sebesar 93,52% dengan kategori **Sangat Layak**. Atas dasar data yang diperoleh maka pengembangan alat tes dan pengukuran kecepatan tendangan (*shooting*) berbasis sensor dinyatakan layak dikembangkan sebagai alat tes dan pengukuran kecepatan tendangan (*shooting*) berbasis sensor.

Kata Kunci : Alat Uji, Kecepatan Tendangan Menembak, Berbasis Sensor



## ABSTRACT

**Yoepiter Zega. Speed Test and Measurement Tools Shooting Sensor Based. Thesis. Medan: Medan State University Postgraduate Program.**

tool and test and measurement of shooting sensor-based This research was carried out on athletes from Darul Ulum Fc and Bangsal FC in May 2022. This type of research is a development research with a Research and Development (R&D) from Sugiyono. This research was conducted with this research carried out with 9 stages (1) Research and information collecting, (2) Planning, (3) Develop preliminary form of product, (4) Preliminary field testing, (5) Main product revision, (6) Main field testing, (7) Operational product revision, (8) Operational JSield testing and (9) Final product. The population in this study used athletes from Darul Ulum Fc and Bangsal FC. The sampling technique used purposive sampling with the first phase of the trial, which consisted of 15 athletes from Darul Ulum FC and the second phase of the trial, which consisted of 30 Bangsal FC athletes. Furthermore, from the first stage of the trial, which amounted to 15 people, the figure was 93.1696 with the Very Eligible criteria, then from the second stage of the trial which amounted to 30 athletes, the figure was 93.524 in the Very Eligible category. Based on the data obtained, the development of a shooting speed measurement tool is declared feasible to be developed as a sensor-based test and shooting .

Keywords: Test Eguipment, Shooting Kick Speed, Sensor Based

