

## ABSTRAK

**Abdi Korintus Simangungsong. Pengembangan Alat Tes dan Pengukuran *Sit And Reach* Berbasis Digital. Tesis. Medan: Program Pascasarjana Universitas Negeri Medan.**

Tujuan penelitian ini adalah untuk menghasilkan produk alat tes pengukuran *sit and reach* berbasis digital yang efektif dan efisien sebagai pengembangan tes dan pengukuran kelentukan otot punggung. Jenis penelitian dalam penelitian ini adalah penelitian *mixed methods* dengan desain penelitian *Research & Development (R&D)* dari Borg dan Gall. Penelitian ini dilakukan dengan 9 tahap penelitian yaitu, (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*, (9) *Final product revision*. Populasi dalam penelitian ini dengan menggunakan mahasiswa fakultas ilmu keolahragaan dan atlet PELATDA SUMUT. Selanjutnya dari uji coba Tahap I yang berjumlah 15 orang menunjukkan angka 87,8% dengan kriteria **Layak**, kemudian dari uji coba Tahap II yang berjumlah 30 orang atlet PELATDA SUMUT menunjukkan angka sebesar 90% dengan kategori **Sangat Layak**. Dari hasil penelitian /uji kelayakan yang dilakukan oleh ahli tes dan pengukuran, ahli IT dan ahli akademisi olahraga menunjukkan angka 96% dengan kategori **Sangat Layak**, sehingga dapat digunakan. Atas dasar data yang diperoleh maka pengembangan alat tes dan pengukuran *sit and reach* berbasis digital dinyatakan layak dikembangkan sebagai alat tes dan pengukuran kelentukan otot punggung.

**Kata Kunci:** *Sit and Reach, Berbasis, Digital*



## **ABSTRACT**

**Abdi Korintus Simangungsong. *Development of a Digital-Based Sit and Reach Test and Measurement Tool. Thesis. Medan: Postgraduate Program, State University of Medan.***

*The purpose of this study was to produce an effective and efficient digital-based sit and reach measurement test kit as a test development and measurement of back muscle flexibility. The type of research in this research is a mixed methods research with a Research & Development (R&D) research design from Borg and Gall. This research was conducted with 9 research stages namely, (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, (9) Final product revision. The population in this study used students from the Faculty of Sports Science and Athletes of PELATDA SUMUT. Furthermore, from the Phase I trial, totaling 15 people showed a score of 87.8% with the Eligible criteria, then from the Phase II trial, which totaled 30 PELATDA SUMUT athletes, it showed a figure of 90% in the Very Eligible category. From the results of the research/feasibility test carried out by test and measurement experts, IT experts and sports academic experts, it shows a score of 96% in the Very Eligible category, so it can be used. Based on the data obtained, the development of a digital-based sit and reach test and measurement tool was declared feasible to be developed as a test tool and measurement of back muscle flexibility.*

**Keywords: *Sit and Reach, Based, Digital***

