

DIGITAL BASED 10 IN 1 STATIC BALANCE SPORT EQUIPMENT TEST DEVELOPMENT TO BREAKTHROUGH THE SPORTS TECHNOLOGY INDUSTRY

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ABSTRAK

This study aims to produce a body balance test that has advantages. This study uses a development research approach with a 4 D design (DEFINE, DESIGN, DEVELOP, DESSIMINATION). This research was conducted by integrating sports science and engineering science into sport technology. The results of this development research have successfully completed a set of test and measurement tools for static equilibrium elements. This innovative product has several advantages, namely: it is easy to operate, easy to carry everywhere, inexpensive and has the ability to store data in a very high capacity. Besides this, it also has a standby battery capability of more than 10 hours. This innovative product uses a material for the casing in the form of aluminum for the engine box and plate, so that relatively corrosion does not occur and has a sufficient appearance. The results of the evaluation of the material experts and media experts obtained an average value of more than 85% and were declared suitable for use. Based on this, this study concluded that the innovative tools had met the rules of sport technology and good measurement tests. Based on the results of these innovative products, which can be used as a good measuring tool, it is stated that they have fulfilled the content validity. Thus the results of this innovation need to be continued for large-scale field tests so that it can be used as a multi-level tool from users, both for early age, adolescents, and adults.

Kata Kunci: *balance test, innovation, digital*