

Isosceles Triangle Test: A Valid, Reliable, And Standardized Assessment for Lateral Hip Flexibility and Side Splits Performance

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This study focuses on the validity, reliability, and norm-referenced evaluation of the Isosceles Triangle Test as a tool to assess lateral hip joint flexibility and side splits performance. The research involves three separate groups: novice Service Physical Education (PE) participants and varsity athletes from a state university in Marawi City, and a norm-reference standards development group comprising college students from a state university in Butuan City. For the validity and reliability study, data were collected from 21 novice Service PE participants and 29 varsity athletes, selected through purposive sampling technique, including age, sex, and Isosceles Triangle Test performance. The test is conducted with two trials, and the best score achieved in terms of lateral split angle is recorded. For the development of norm-referenced standards, a large-scale testing was carried out with 350 females and 135 male first-year college students, selected using complete enumeration sampling within the defined population, from a university in Butuan City, Philippines, aged 18 to 27 years old. The Independent Samples T-Test ($t[48] = -3.509$, $p < 0.001$, $d = -1.005$) reveal a significant difference in Best Scores between the two groups, confirming the test's known-group validity. Pearson's correlation analysis demonstrates good consistency over time. Moreover, the norm-referenced evaluation tables for female and male first-year college students were developed and presented. Caution is advised when using the norms for different populations, as they are based on specific demographics. The Isosceles Triangle Test proves to be a valid and reliable tool for assessing lateral hip joint flexibility, and the provided norms serve as valuable reference points for interpreting individual performance in the test. However, contextual considerations and potential limitations should be carefully evaluated when applying the norms in diverse settings.

Keywords: Norm-Referenced, Side Splits Performance, Validity and Reliability