## **Impacts of Ritual Postures on Performance of Bowling Skills**

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## Abstract

The objective of this research paper is twofold 1: to comparer the difference of bowling skills between bowlers with and without ritual postures; 2: to compare the bowling skills between bowlers with more precise ritual postures and less precise ritual postures. The test subjects are 60 male and female students from the Ling-Tung Junior High and Senior High Schools. Each group consists of 20 students, with equal number of 10 male and female students per group; average age =  $15.1\pm0.87$  (years old); average height =  $159.4 \pm 19.68$  (centimeter); average weight =  $54.98 \pm 7.34$ (kilogram). Students are divided randomly as following: "Precise Ritual Postures Group" (N=20), "Less Precise Ritual Postures Group" (N=20), and "No Ritual Postures Group" (N=20). Before the official experiment, all subjects will receive 10 bowling pre-tests. They will also receive 5 weeks of practice of bowling ritual postures and movement before the post test is conducted. The bowling ritual posture groups, final test, and pre-test results of bowling skill performance are defined as independent variable, dependent variable, and covariance, respectively, in our study. One-way ANOVA and a priori comparison are conducted to investigate the differences of skill performance between the "Ritual Postures Group" and the "No Ritual Postures Group," as well as between the "Precise Ritual Postures Group" and the "Less Precise Ritual Postures Group." A conclusion is drawn within the scope of our research as follow: the "Ritual Postures Group" performs better than the "No Ritual Postures Group"; the "Precise Ritual Postures Group" performs better than the "Less Precise Ritual Postures Group." Therefore, the ritual posture training imposes a significant impact on bowler's performance.

Key words: bowling, ritual, performance

