

THE EFFECT OF 6-WEEKS CORE MUSCLE TRAINING ON THE EXPLOSIVE POWER AND SPEED OF PRIMARY SCHOOL TRACK AND FIELD ATHLETES

Chang, Ya-Ching⁽¹⁾, Ku, Chien-Hung⁽¹⁾, Chang, Chia-Chang⁽¹⁾

ABSTRACT

The main purpose of this study was to explore the impact of six-week core training on the explosive power and speed of primary school track and field athletes.

Participants: There are 24 elementary students in the 5th and 6th grades of the track and field team (age 11.0 ±1.0) years old. Previously measured as a group basis, according to its results for S-type pairing, 12 in the experimental group and 12 in the control group. The experimental group involved in the indirect high-intensity core curriculum which adjusted the intensity by 20% every three weeks until the highest point reached 100% intensity in six weeks, while the indirect high-intensity training was six weeks, and the intensity of the first three weeks was 80%, the intensity of the last three weeks was 100%; the curriculum items were: core freehand, short distance sprint, basic mark exercise, stretching exercise; 3 times a week, 30 minutes each time, a total of 6 weeks of core special class training; control group just accept general class training. Subjects were tested for body composition (percent body fat), speed (10-meter sprint, 20-meter sprint), and explosive force (established jump measurement) before and after training.

RESULTS: The paired sample T-test was used to analyze the effects of core training on explosive power and speed in the two groups around six weeks, the single-factor covariate analysis of the experimental group was performed to compare the differences in basic

exercise abilities between the groups. After receiving six weeks of core training, the experimental group had significantly higher explosive power and speed scores than the control group that did not receive core training.

Conclusions: The study indicates that the core training involved in track and field training can effectively improve the students explosive power and speed.

KEYWORDS: Core training, Special physical fitness, track and field, explosive power, speed.

Contact: [changcc@cc.ncue.edu.tw; yaginchang@gmail.com]

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(1) National Changhua University of Education, R.O.C