

The Effectiveness of Ballistic Exercises in Developing the Physical Abilities and the Digital Level of the Junior 100 Meters Sprint

AUTHORS AMGAD ZAKRIA AHMED ABDELAAL¹, MAHMOUD IBRAHIM SHOIEB², BASSANT ABOELELA ABDELAZIZ³

Affiliation; ¹ Professor of Sports Training and Head of the Department of Sports Training and Movement Sciences, Faculty of Physical Education for Boys, Zagazig University.

² Assistant Professor and Acting Head of the Department of Theories and Applications of Track and Field Competitions, Faculty of Physical Education, Suez Canal University.

³ Master's researcher majoring in sports training and movement sciences, Faculty of Physical Education, Suez Canal University.

CORRESPONDENCE: BASSANT ABOELELA ABDELAZIZ, E-MAIL:
PASSANTABOALELLA29@GMAIL.COM

Abstract

The importance of the current research lies in the development of the 100-meter junior sprinter through the proposed training approach and the upgrading of performance. Ballistic training became one of the most used methods in developing muscular ability in many sports activities that require merging the maximum strength with the maximum speed of the muscle, as it is related to the relationship between strength and speed. The researchers used the rubber resistance tape ballistic training method on the strength of the lower limb muscles and the digital level for the 100-meter runners under 18 years old, by developing the speed of the 100-meter junior sprinter. The research community included youngsters in the 100-meter sprint and registered in the Egyptian Athletics Federation season 2020/2021, junior stage of (18) years. 6) pilot sample contestants and (16) basic sample players divided into (8) experimental sample contestants and (8) control sample contestants.

The results revealed that there was an improvement in the digital level of the 100-meter race as the researchers recommend focusing on the use of ballistic exercises using rubber resistance, clear impact on the physical aspects, which is reflected in the development of the digital level of the 100m running race

Hence, the researchers, considering the research aim and hypotheses, and within the limits of the research sample and the procedures followed by the researchers, could conclude that the use of ballistic exercises with Resistance Rubber has a clear impact on the development of special physical variables and the digital level and it is recommended to be used to develop physical abilities (public and private) in various group and individual games.

Keywords:

BALLISTIC EXERCISES, PHYSICAL ABILITIES, Resistance Rubber, 100m running race, DIGITAL LEVEL