THE BASIC BIOMECHANICS PARAMETERS WHEN LONG JUMP ATHLETES FINISH THE PROCESS OF TAKING OFF

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INTRODUCTION: By means of analytical model for long jump achievements, the researchers analyzed the interrelated relationship between the long-jumper athletics kinematics parameter and their achievements, made an interrelated relationship chart, and used it to emendate and predict the achievements and to evaluate the technique of the take off and to improve the effect of training.

METHODS: Using the characteristic of interrelated relation between the movement parameters of long-jumpers by using the methods of dynamics and kinematics compare the actual jumping distance and the calculating distance. Therefore, we use the paradigm between parameter materials of Bill Meng's who created the world record to make special table. Analyzing the numerical value of take off angle we can find that the gradual increasing angle of the take off will cut down the long-jump achievement. If we diminish the original angle of taking off, we will find that the result have no obvious increasing, when the angle diminishing. So, we can prove the best take off angle is from 55° to 74°.

RESULTS AND DISCUSSION: The important role of the center of gravity of human body will take effect not during our taking off but during the phase of rear up. At present, the most realistic method to improve the result is to make the take off skill perfect and control the take off angle. To solve this problem in our practice, we should use the math formula to set up a chart of the long-jumpers model athletics.
We can use the model athletics appraisal table basing on different grades of long jumpers to accurately emendate and predict the kinematics parameters. Using this method to make a series of appraisals for the training process, we can test the actual effect of long-jumpers according to the acquired parameters changes.

CONCLUSION:
1. The best take off angle is from 55° to 74°.
2. We can use the model athletics appraisal table basing on different grades of long jumpers in usual training to accurately emendate and predict kinematics parameters athletics' technique.

REFERENCE:
Shu Bin. (1998). The unique technique and effect target of taking off of long jumpers in different levels. *Theory And Practice Of Physical Education*, 5, 38-40.