

Effects of a Six-week Core Strength & Stability Training on the Performance of Temasek Polytechnic Sprint Kayak Athletes. Oct 2019

Abstract

Background: In a canoe sprint event, core muscles play an important role in stabilizing the athlete in the boat in an unstable environment. Core strength and stability are needed to allow the athlete to translate the forces generated from the rotation of his torso to propelling the boat forward. It is hypothesized that an additional core training programme will result in stronger core strength, core stability score and improvement in 500m time trial.

Methods: A two subject study was conducted with one serving as the intervention subject and the other, the control subject. The intervention subject completed a 6-week training for core strength and stability in addition to the current training programme. The 6-week programme comprises of 5 core exercises, performed with increasing resistance over the six weeks. The Control subject completed only the current training programme. Investigations on Trunk Extensor endurance strength, Trunk Lateral Endurance Test, Functional Core Muscle Strength and 500m Time Trial were conducted pre and post intervention to look at improvement in performance markers.

Results: After six weeks of additional core strength and stability training, the intervention Subject improved in Trunk Extensor endurance strength but performed more poorly in Functional Core Muscle strength. There was no improvement in Trunk Lateral Endurance Test and in 500m Time Trial. The Control subject improved in Trunk Extensor endurance strength and in 500m Time Trial but performed more poorly in Lateral Endurance Test. There was no improvement in Functional Core Muscle strength for the Control subject.

Conclusion: The results suggested that the additional 6-week core strength and stability training yielded mixed results in core strength and stability test scores and in 500m Time Trial.