## 研究業績 英文表記

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表題	フラッターキック泳を水面付近と水中で行った際の推進力の相違.
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英文	
Title	The Difference of Propulsive Force between Water Surface and Underwater Conditions in Flutter Kick Swimming.
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Abstract	This study investigates differences in propulsive force between the water surface and underwater conditions in the flutter kick swimming technique. The subjects were well-trained university male swimmers. A towing device was set up in a 25 m swimming pool to measure the towing force and velocity of the swimmer under two conditions: the swimmer was near the water surface and at a depth of 0.60 m. The swimmers performed the gliding trials and the kicking trials with maximum effort with five towing velocities from 1.2 to 2.4 m/s. The passive drag and the resultant force of the propulsive and drag forces in kick swimming were formulated, respectively. The propulsive force was calculated from the difference between the two formulas. A difference of the propulsive force under conditions in high swimming velocity was observed. This suggests that the water surface condition has advantages of raising the foot above water.
keyword	propulsive force; depth; flutter kick; swimming