## 原著

## 打運動の適時期に関する研究

―フルバッティングとパッティング動作の加齢的発達と練習効果から―

A study on the optimal period for batting movement—Based on the development and effect of practice on batting and patting in elementary school students—

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## Abstract

In children's in their growth /development period, we clarified the optimal period of the capability in relation to the batting movement by full swing. In addition, we investigated the accuracy of patting movement, from the viewpoint of natural development and practice effect.

- 1) The capability to hit a ball by the bat in the full swing batting movement was generally improved over time, and the development of the capability was particularly pronounced during the period between 4<sup>th</sup> and 5<sup>th</sup> graders of elementary school.
- 2) When the development on the accuracy of patting with aging was investigated, the accuracy of patting developed over time until the  $4^{th}$  grade of school, and the tended to be on a plateau.
- 3) In the practice group of patting, a significant increment in average score was observed in all grades after practice.
- 4) Based on these results, improvements of the records in the practice group were investigated in terms of not only the average score but also the frequency of obtaining 5 points and the variation in scores among 10 pitches. The results showed that high improvement were seen in all items in 5<sup>th</sup> graders.
- 5) These results suggest that the optimal period of batting movement may be the  $5^{\rm th}$  grade of elementary school.

キーワード 打運動、適時期、正確性、児童

batting movement, optimal period, accuracy, children