

## **The application of modified equipment in retention of motor task performance amongst children of low and high working memory capacity**

### **ABSTRACT**

The ability of children to learn and retain motor-related tasks could ease the pathway of mastering sport-specific skills that are non-trivial in spurring children's athletic development. Modification of equipment may facilitate the acquisition of complex motor tasks with respect to children's specific characteristics. The influence of modified equipment in retention ability of motor task amongst children with low and high working memory capacities is investigated in this study. Forty children aged 9–10 years were recruited and the Wechsler Intelligence Scale for Children was used to determine the working memory capacity of the children. High and low working memory (HWM), (LWM) were identified and allotted into 4 different groups of 10 children each Viz. (A) HWM with standard mini basketball equipment, (B) LWM with standard mini basketball equipment, (C) HWM with modified mini basketball equipment and (D) LWM with modified mini basketball equipment. Basketball throw from the free-throw line in pre and post-tests were used as the acquisition and retention tasks ability respectively. There was a significant main effect of memory and equipment towards children's retention ability. A significant difference was also observed across both HMC and LWM when subjected to the use of modified equipment ( $F, 1, 24.025 = 23.958, p < 0.001$ ). No statistically significant difference was detected between the HWM and LWM in their ability to retention tasks  $p > 0.05$ . The usage of modified basketball equipment could enhance mastery of motor tasks in children irrespective of their memory capacity.