

Motor competence assessment in young children: convergent validity between the KTK and MOT 4-6 test batteries

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Abstract

Objective: The development of motor competence in early childhood substantially contributes to successful engagement in sports and other physical activities. In view of the decreasing levels of physical activity and motor skills in children over the past decades, an appropriate assessment and monitoring of motor competence in early childhood is invaluable, for both research and practice. The purpose of this study was to investigate the convergent validity between two motor competence assessment tools: the Körperkoordinations Test für Kinder (KTK) and the Motoriktest für Vier- bis Sechsjährige Kinder (MOT 4-6).

Methods and results: Five hundred and thirty 5- and 6- year-old children (277 ♂ and 253 ♀; mean age = 5.95; SD = 0.57) were tested by practiced assessors on the KTK and MOT 4-6 during the same day. From the raw scores, a Motor Quotient was calculated based on normative data of the KTK and MOT 4-6. A Pearson correlation demonstrated a moderately strong positive association between KTK Motor Quotient and MOT 4-6 Motor Quotient ($r = 0.605$). Crosstabs showed a fair level of agreement between the two tests ($K = 0.313$; $p < 0.001$).

Conclusion: These findings show that some evidence of convergent validity between KTK and MOT 4-6 is provided in present study. However, because of the low level of agreement between KTK and MOT 4-6, practitioners and/or clinicians need to be aware of possible categorisation errors when using the KTK or MOT 4-6 test to detect motor impairments.