

Reproducibility, validity and feasibility of motor competence assessment instruments
for 2- to 18-year old children: a systematic review

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Introduction:

Motor Competence (MC) is one of the key components in developing an active lifestyle (Barnett et al., 2016; Lubens et al., 2010). The importance of MC makes it necessary to systematically look into the clinimetric quality of measurement tools. In 2009 a review has examined the validity, reliability and feasibility of assessments of MC (Cools et al., 2009). Since then, no such review has been published. Therefore, the purpose of the present systematic review is to look into the validity, reliability and feasibility of MC assessment tools for children aged 2-to 18-years old in a Physical Education (PE) setting.

Method:

A systematic review of the literature (2000 – 2018) on MC assessment tools was conducted. To ensure the completeness of the review and to improve the reporting of this review, the checklist of the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA statement) was used.

Results:

38 studies were selected. The quality of these studies ranged from 2.0 up to 9.0 on a 10-point scale. 11 studies examined the internal consistency, 16 examined the intra-rater or test-retest reliability, 10 examined the inter-rater reliability, 13 examined the construct validity and 19 studies examined the concurrent validity of a MC assessment tool. The feasibility of the tools wasn't addressed in most studies.

Conclusion:

The older MC assessments (i.e. M-ABC (1992) and TGMD-2 (1985)) that assess isolated skills showed good results on reproducibility and validity in high quality studies among 3- to 16- year old children. However, their feasibility for the PE setting seems lower than the younger assessment tools. The newer assessment tools based on an obstacle course (i.e. CAMSA (2015) and AST (2015)) seem reliable, valid and feasible assessment tools in PE among 4-to 12-year old children.

References:

Barnett, L. M., Stodden, D., Cohen, K. E., Smith, J. J., Lubans, D. R., Lenoir, M., & Morgan, P. J. (2016). Fundamental movement skills: An important focus. *Journal of Teaching in Physical Education*, 35(3), 219–225.

Cools, W., De Martelaer, K., Samaey, C., & Andries, C. (2009). Movement skill assessment of typically developing preschool children: A review of seven movement skill assessment tools. *Journal of sports science & medicine*, 8(2), 154

Lubans, D. R., Morgan, P. J., Cliff, D. P., Barnett, L. M., & Okely, A. D. (2010). Fundamental movement skills in children and adolescents: review of association with health benefits. *Sports medicine*, 40(12), 1019-1035