

POSTER: USING RASCH ANALYSIS TO DEVELOP A SCHOOL-BASED ASSESSMENT OF FUNDAMENTAL MOVEMENT SKILLS

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Background: A large proportion of children are not able to perform age-appropriate fundamental movement skills (FMS). Thus, it is important to assess FMS so that children needing additional support can be identified in a timely fashion. There is great potential for universal screening of FMS in schools, but research has established that current assessment tools are not fit for this purpose. **Objective:** To develop a viable, free, school-based measure of fundamental movement skills for primary school children. **Methods:** An assessment tool (FUNMOVES) was developed based on: (i) a review of the literature on current assessments; (ii) an online survey of primary school teachers that aimed to understand potential barriers to school-based FMS assessments and (iii) expert opinion from psychology, public health and physical activity professionals. Over three studies, 814 children aged 4 to 11 years were assessed in school using FUNMOVES. After each study Rasch analysis was used to evaluate the FUNMOVES' construct validity, and modifications were then made to the assessment based on the results and researcher implementation notes. **Results:** Study 1's Rasch analysis found a multi-dimensional measure that did not fit the Rasch model, with issues relating to disordered thresholds, local dependency, and misfitting items. Study 2 showed a unidimensional measure, with acceptable internal consistency and no local dependency, but that did not fit the Rasch model. Performance on a Jumping task was misfitting, and there were issues with disordered thresholds (for jumping, hopping and balance tasks). Study three revealed a unidimensional assessment tool that fitted the Rasch model, with acceptable internal consistency and no further issues. **Implications:** FUNMOVES has good construct validity and it is possible for teachers to use it to assess the FMS of a class in under an hour, using resources available at schools. We are now in the process of evaluating the validity, reliability, feasibility and acceptability of FUNMOVES.