A motor skills assessment could be helpful in talent development by estimating essential perceptuo-motor skills of young players, which are considered requisite to develop excellent technical and tactical qualities. The Netherlands Table Tennis Association uses a motor skills assessment in their talent development programme consisting of eight items measuring perceptuo-motor skills specific to table tennis under varying conditions. This study aimed to investigate this assessment regarding its reproducibility, internal consistency, underlying dimensions and concurrent validity in 113 young table tennis players (6–10 years). Intraclass correlation coefficients of six test items met the criteria of 0.7 with coefficients of variation between 3% and 8%. Cronbach’s alpha valued 0.853 for internal consistency. The principal components analysis distinguished two conceptually meaningful factors: “ball control” and “gross motor function.” Concurrent validity analyses demonstrated moderate associations between the motor skills assessment’s results and national ranking: boys $r = -0.53$ ($P < 0.001$) and girls $r = -0.45$ ($P = 0.015$). In conclusion, this evaluation demonstrated six test items with acceptable reproducibility, good internal consistency and good prospects for validity. Two test items need revision to upgrade reproducibility. Since the motor skills assessment seems to be a reproducible, objective part of a talent development programme, more longitudinal studies are required to investigate its predictive validity.


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