

Self-reported vs. actual physical performance in late childhood

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Background

- The assessment of physical fitness in youths is of public health interest; however, it is time-consuming and costly (Matelot et al., 2024; Niessner et al., 2020).
- Self-reporting may be a convenient alternative method, provided there is a large concordance between self-reported and actual physical fitness.

Research question

Can pre-teen children precisely self-report their physical fitness?

Methods - "Oldenburger Motor Self-reporting and Testing" (OLMoST)

42 German fifth graders (age: M = 11.7±0.5 years; 59.5% girls)

1 Motor self-reporting



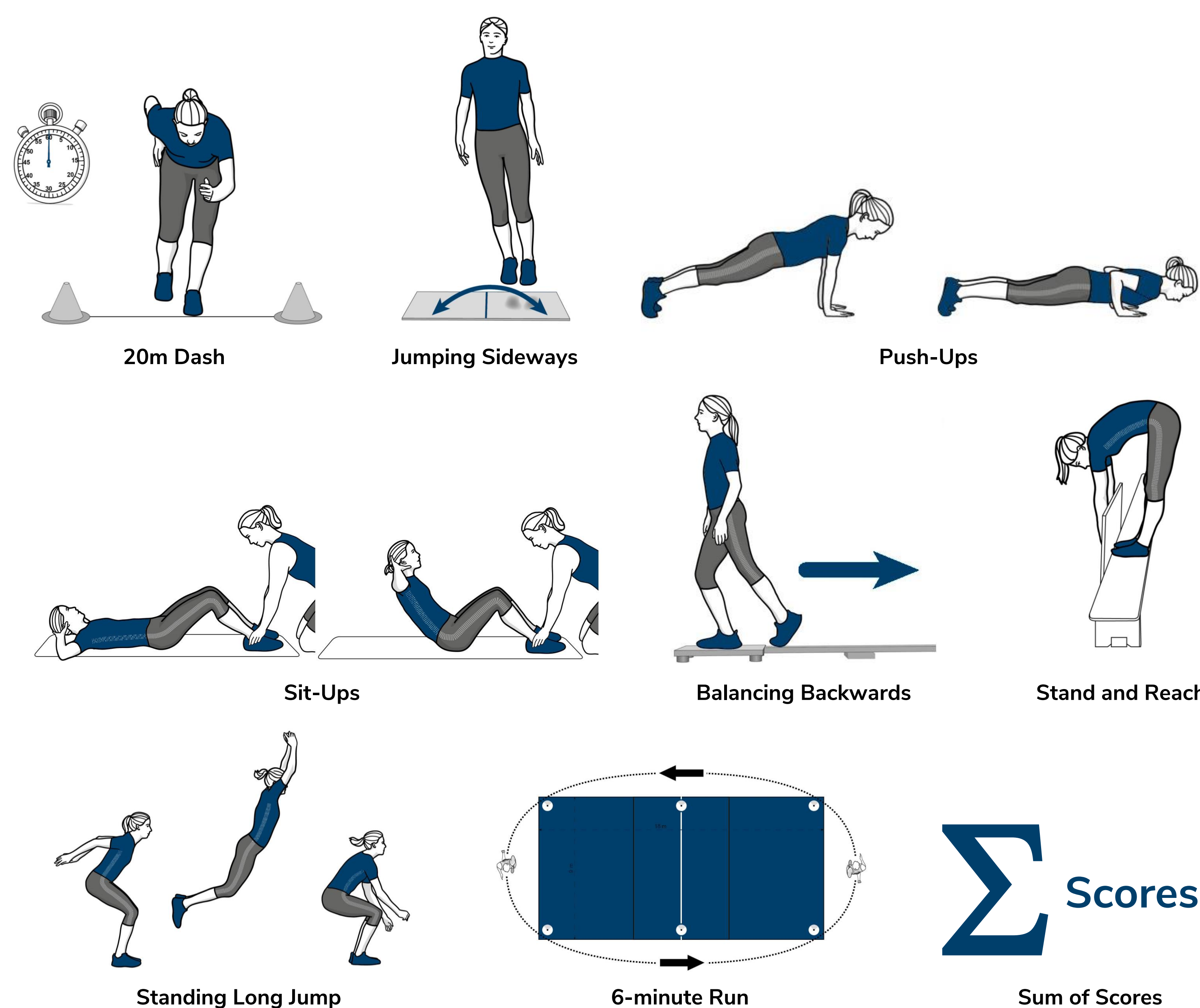
- Test items refer to a self-assessment of the performance in motor tasks of the International Physical Performance Test Profile 6-18 revised (IPPTP) (Bös et al., 2021)
- Answer options on 5-point scale align with age-specific fitness percentiles (Niessner et al., 2020)
- Digital questionnaire completed with assistance

2 Motor testing

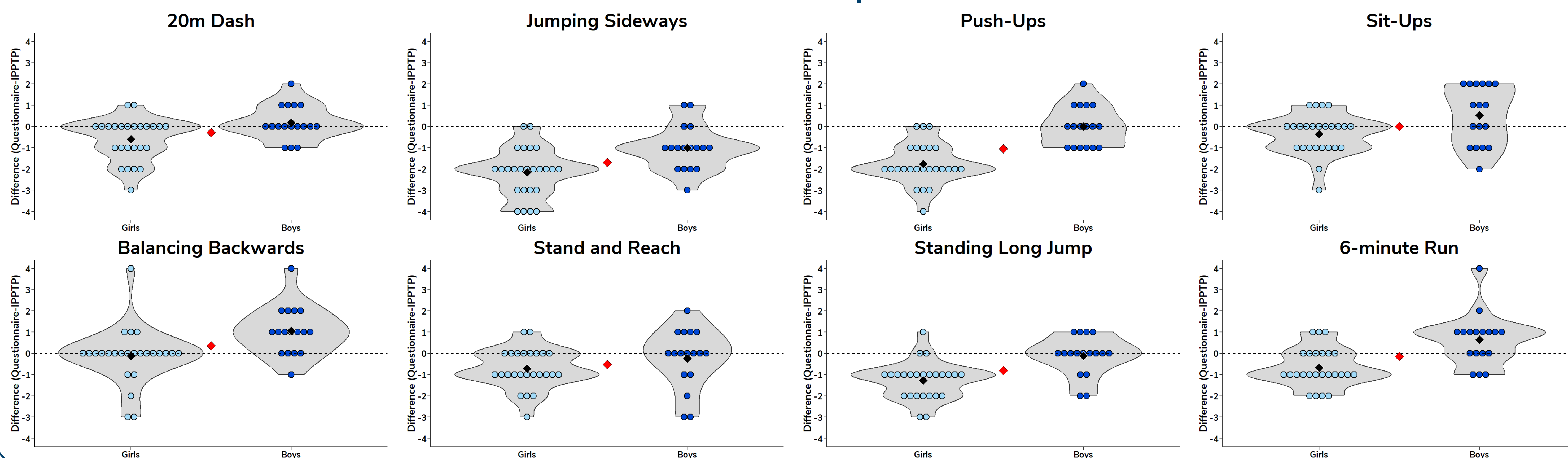
- Implementation of the IPPTP to assess actual fitness

3 Concordance between self-reported and actual physical fitness

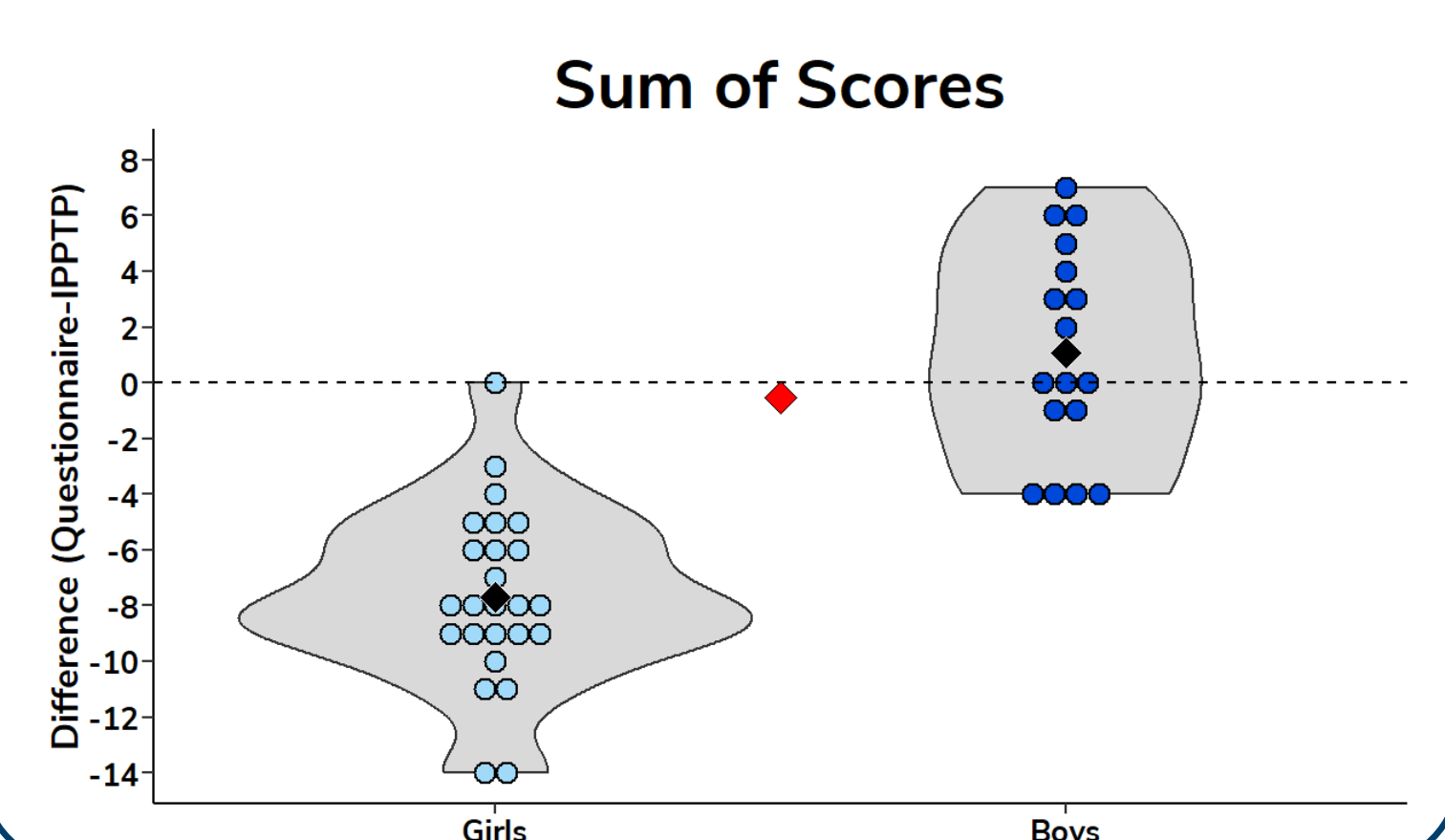
- Computation of Kendall's Tau-b



Results – Task specific



Results – Sum of Scores



Results – Concordance (τ)

Item	Girls	Boys
20m Dash	.49	.22
Balancing Backwards	.34	.28
Jumping Sideways	.12	.17
Stand and Reach	.46	.19
Push-Ups	.51	.63
Standing Long Jump	.42	.25
Sit-Ups	.55	.19
6-minute Run	.53	.18
Sum of Scores	.70	.52

τ small medium large

Conclusion

- There is a large concordance between self-reported and actual physical fitness in the sum of scores.
- However, girls tend to underestimate their fitness.
- A task-specific and a further sex-specific differentiation is advisable when analyzing concordance in this context.

References

Bös, K., Schlenker, L., Eberhardt, T., Abdelkarim, O., & Mechling, H. (2021). International physical performance test profile 6-18 (revised). *Schriften der Deutschen Vereinigung für Sportwissenschaft: Band 293*. Feldhaus.
 Matelot, D., Béghin, L., Martin, C., Deschamps, T., Ovigneur, H., & Vanhelst, J. (2024). The International Fitness Scale (IFS): A valid tool to assess physical fitness in French children. *J Epidemiol Popul Health*, 72(2), 202380.
 Niessner, C., Utesch, T., Oriwol, D., Hanssen-Doose, A., Schmidt, S. C. E., Woll, A., Bös, K., & Worth, A. (2020). Representative percentile curves of physical fitness from early childhood to early adulthood: The MoMo study. *Front Public Health*, 8, 458.

e-Poster

