



WFOT
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Testing Motor Skills and Fitness in African School-Aged Children Using the PERFORMANCE and FITNESS Test Battery (PERF-FIT)

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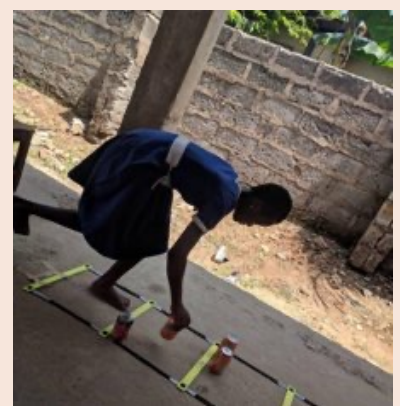
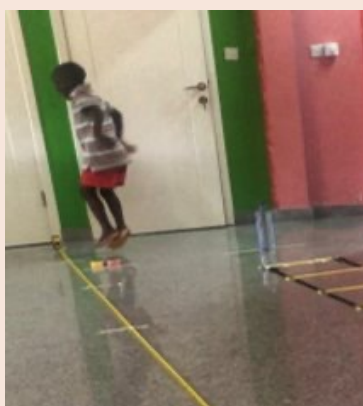
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Why PERF-FIT? Why Now?

- 1 in 4 African children may be at risk for motor skill delays, yet few are identified early¹
- Most existing tools (e.g., MABC-3, BOT-2) are not normed for African children²
- Existing tools are not validated or feasible in African contexts²
- Assessment gaps mean many children go unidentified
- Missed intervention opportunities



PERF-FIT: A Contextually Relevant and Open-Source Solution

- 5 African Countries' collaboration: Ghana, Nigeria, Ethiopia, Tunisia, South Africa³
- 2 subscales; Culturally feasible items⁴



Validated:

- ICC inter-rater = 0.99
- ICC test-retest = 0.80⁵

Age-and-sex-specific norms for **2,604 children aged 6–12 years**³

Region	Country	Percentage of Africa	Total Population	Percentage Growth
North	Sudan	3.4%	50,042,791	1.34%
	Tunisia	0.9%	12,200,431	0.67%
East	Ethiopia	8.7%	128,691,692	2.64%
West	Nigeria	15.4%	227,882,945	2.12%
	Ghana	2.3%	33,787,914	1.93%
South	South Africa	4.3%	63,212,384	1.34%

What We Found and Why It Matters

- Significant age differences across all tasks
- Sex differences were task-specific (E.g., boys > ball skills, girls > balance)
- 21% underweight, 11% overweight → NCD implications⁶
- **“The age- and sex-specific norms represent a significant step forward in the assessment of motor skills and fitness in African children”.**
- Supports early identification and school-based OT

	Ethiopia	Ghana	Nigeria	South Africa	Tunisia
boys/girls [§]	149/117	237/242	147/153	641/668	124/126
Age (years)*	6.8 (0.5)	9.81 (1.8)	8.2 (1.5)	9.5 (1.7)	8.5 (1.5)
BMI (kg/m ²)*	13.80 (1.26)	16.35 (2.34)	15.31 (2.19)	16.52 (2.27)	17.14 (1.89)
Height (m)*	1.17 (0.08)	1.38 (0.12)	1.27 (0.10)	1.34 (0.11)	1.30 (0.09)
Weight (kg)*	19.1 (2.46)	31.73 (8.54)	24.97 (6.62)	30.22 (8.06)	29.13 (6.13)

Legend: [§] number of children; * mean (SD)

Call to Action & OT Relevance

Toward Equitable Assessment for All



- PERF-FIT is open-source and adaptable⁷
- PERF-FIT supports early screening in schools and community OT
- Aligns with WFOT goals: **SDG 3 (Good Health and Well-being), SDG 4 (Quality Education)**⁸



• Encourages **inclusive practice and occupational justice**

• Available for clinical use, training, and research

This study provides the first age- and sex-specific motor skill norms for African children aged 6-12.

“All children deserve to be seen, assessed, and supported in every context.”

Want to Learn More or Collaborate?



References & Useful Resources

If you're interested in the PERF-FIT test tool, manual or supporting data collection or contextual adaptation; **Scan the QR Code:**



1. Chaabane, S., Chaabna, K., Doraiswamy, S., Mamtani, R. and Cheema, S., 2021. Barriers and facilitators associated with physical activity in the Middle East and North Africa region: a systematic overview. *International journal of environmental research and public health*, 18(4), p.1647.
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3. Smits-Engelsman, B., Coetzee, D., Doe-Asinyo, R., Ituen, O., Farhat, F., Dubale, Y. and Verbecque, E., 2025. Motor skills and fitness in African children: the PERF-FIT study.
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