

Supplementary file 1. Description of the test items (1–4) and scoring of the The Körperkoordinationstest für Kinder (KTK) (Kiphard and Schilling, 1974, 2007)

The KTK includes four test items, in which the level of difficulty increases as the task proceeds. Verbal instructions, a demonstration, and a practice trial precede each test item:

(1) Walking Backwards (WB) along three balance beams 3 m long and 6, 4, and 3 cm, respectively, wide. A maximum of eight steps per three trials per each balance beam are counted (8 steps x 3 trials x 3 balance beams), resulting in a maximum of 72 steps for this test.

(2) Hopping for Height on one leg over one (60 cm x 20 cm x 5 cm) up to a maximum of 12 pillows after a run-up (1.5 m) and followed by two hops on the same leg after hopping the pillow(s). Three trials are allowed for each leg for each height. Three, two or one point(s) are/is awarded for successful performance of the first, second, or third trial. The maximum theoretical score for each leg is 39 (no pillow+12 pillows one on the other), making a possible test maximum score of 78 points.

(3) Jumping Sideways (JS) as many times as possible over a wooden slat (60 cm x 4 cm x 2 cm) in 15 s. One point is awarded for the first jump to the side, the second point for the second jump to the starting side, etc. The test score is the sum of the jumps made over two trials.

(4) Moving Sideways (MS) across the floor as many times as possible within 20 s by stepping from one plate (25 cm x 25 cm x 5.7 cm) to the next, transferring the first plate across the body with the hands and then stepping on it, etc. The first point is awarded for transferring the plate across the body on the floor, the second point for stepping on the transferred plate, the third point for transferring the plate across the body, etc. The

score is a sum of two trials, both performed on the same side. The child can decide which side he or she prefers.

The raw test scores for each test item can be transformed into age- and gender-specific motor quotients (MQs) according to norm tables based on the performance scores of 1228 typically developing German children in 1974. The total KTK MQ (mean = 100; SD = 15) designates the individual's MC. A score below 85 is below the 15th percentile, and is considered insufficient. Using the MQ values for the relevant group, either typically developing children or children with speech disabilities, brain disorders, or behavioral disabilities, individuals can be categorized as having (1) MC disorders, (2) MC insufficiency, (3) normal MC, (4) good MC, or (5) very good MC (Kiphart and Schilling, 2007).