

Correlations of Motor Abilities and Physical Self-Concept in Primary School Children



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In this study, the relationship between motor abilities and physical self-concept in 32 primary school children (14 boys, 18 girls, average age 8.66 years) before and after five-week twice-weekly psychomotor exercise sessions is examined. German Motor Skills Test for Children and Adolescents from 6 to 18 years DMT 6-18 (Bös et al., 2009) and Questionnaire for the Measurement of Physical Self-Concept in Childhood PSK-K (Dreiskämper et al., 2015) are used. The control class receives no treatment. Means and standard deviations and Pearson correlations of Z-scores of the DMT 6-18 and the raw scores of the PSK-K. z according to Eid et al. (2011, p. 547f) for differences between the correlations. SPSS version 29. significance level $p < .05$. Results: Experimental class pretest: strength ($r = .61^{**}$) and speed ($r = .58^*$) significant, posttest: all except coordination ($r = .46$), highest for flexibility ($r = .78^{***}$) and speed ($r = .74^{***}$). Control class pretest: Flexibility significant ($r = .68^{**}$), posttest: Flexibility ($r = .63^*$), speed ($r = .65^{**}$), endurance ($r = .56^*$) and overall ($r = .52^*$). Significant group differences in pretest for strength. Discussion: The correlations between motor abilities and physical self-concept are higher than expected (Dreiskämper et al., 2015). This could not only be due to the intervention, but also to a test effect (the test phases were only seven weeks apart). The control class may therefore also have been able to assess themselves better. Conclusion: After five weeks of psychomotor exercise sessions twice a week, the children were able to assess themselves better. The study should be repeated with more children over 12 weeks to eliminate the test effect.

References

1. Bös, K., Schlenker, L., Büsch, D. et al. (2009). Deutscher Motorik-Test 6-18 (DMT 6-18). Hamburg: Czwalina.
2. Dreiskämper, D., Tietjens, M., Honemann, S., et al. (2015). PSK-Kinder - Ein Fragebogen zur Erfassung des physischen Selbstkonzepts von Kindern im Grundschulalter. Zeitschrift für Sportpsychologie, (3), 97-111. <https://doi.org/10.1026/1612-5010/a000141>.
3. Eid, M., Gollwitzer, M., & Schmitt, M. (2011). Statistik und Forschungsmethoden Lehrbuch. Weinheim: Beltz.

Biography:

Dr Andrea Dincher is a sports scientist and lecturer for special tasks at Saarland University and the RPTU Kaiserslautern-Landau. Her research focuses on children's motor development, test development and exercise therapy. She is honorary President of the German Association of Sports Teachers in Saarland and has been a trainer in sports clubs for children's gymnastics, apparatus gymnastics, long-distance running, senior citizens, obesity, cardiac and orthopaedic rehabilitation for over 25 years.