BOOK OF ABSTRACTS

30th Annual Congress of the
EUROPEAN COLLEGE OF SPORT SCIENCE

1 - 4 July 2025 | Rimini, Italy
Jointly hosted by
University of Bologna | University of Padova

Edited by:
Marcora, S., Narici, M., Paoli, A., De Vito, G., Tsolakidis, E.,
Thompson, J.L., Ferrauti, A., Piacentini, M.F.

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ISBN 978-3-9818414-8-0

CONCLUSION: The results showed that adolescents involved in ES showed significantly higher average ability compared to NS adolescents. This was in contrast to Participation in ES showed lower average PIU compared to NS. Hence, it can be concluded that involvement in extracurricular sports can improve motor skills and reduce the impact of PIU in adolescents. Further research is needed with a larger sample size to ensure the data obtained more accurately reflects the sample, as well as a more comprehensive examination of the factors that influence similar outcomes.

LEARNING THROUGH MOVEMENT: EMBODIED APPROACHES IN EDUCATION - A SCOPING REVIEW

FAELLA, P., DIGENNARO, S., IANNACCONE, A.
UNIVERSITY OF CASSINO AND SOUTHERN LAZIO

INTRODUCTION: Embodied learning has emerged as a pedagogical approach that integrates physical activity, cognition, and environmental interactions to enhance education. Rooted in phenomenology and embodied cognition theories, this approach challenges traditional mind-body dualisms and fosters inclusive, multidisciplinary learning experiences. This scoping review aims to explore how embodied learning contributes to education in school settings.

METHODS: Following the Joanna Briggs Institute guidelines and PRISMA checklist, a comprehensive literature search was conducted between January and November 2024, including empirical studies on embodied learning within physical education settings. Studies were screened using predefined inclusion criteria, and thematic analysis was applied to identify key themes. The quality of studies was assessed using the Mixed Methods Appraisal Tool.

RESULTS: A total of 22 studies were selected and 3 core themes were identified: Physical Literacy, Embodied Identity, Multidisciplinarity. Results highlighted how movement-based learning identifies physical movement as essential to cognition, enhancing comprehension, particularly in STEM subjects. Sensory experience plays a crucial role, as cognition emerges from the integration of visual, auditory, kinesthetic, and tactile inputs. The alignment between movement and learning tasks influences retention, with greater bodily engagement leading to stronger outcomes. Exploration and body awareness further enrich learning by fostering self-awareness and meaning making. Playfulness and enjoyment enhance motivation, making learning more engaging. Embodied learning also extends into digital environments, where immersive technologies support sensorimotor interaction. Additionally, it supports cross-disciplinary connections by grounding abstract concepts in concrete experiences. The concreteness fading process further reinforces this approach, gradually guiding learners from physical interaction to abstract reasoning, enhancing knowledge transfer.

Discussion: Embodied learning offers a transformative framework for education by bridging physical activity with cognitive and social development. It challenges normative constructs of ability and fosters inclusive practices that meet diverse student needs. The integration of digital tools, such as virtual reality and motion-based gaming, represents an emerging frontier with potential applications in education. Despite its benefits, challenges in implementation, resource allocation, and curriculum integration remain.

CONCLUSION: This review underscores the potential of embodied learning to enrich education by fostering holistic, student-centred pedagogies. Further research is needed to address methodological constraints, explore long-term impacts, and enhance the scalability of embodied learning interventions in diverse educational and cultural settings.

ACADEMICALLY HIGH ACHIEVING STUDENT'S (AHAS) SELF-PERCEIVED ATHLETIC COMPETENCE AND SELF-REPORTED PHYSICAL ACTIVITY

AUGUSTSSON, F., GUSTAFSSON, H., MELLROTH, E., HÖGMAN, J.
KARLSTAD UNIVERSITY

This study examines self-perceived athletic competence and physical activity levels among academically high-achieving students (AHAS) in Sweden. Gifted and high-achieving students can face negative stereotypes about their physical abilities and tend to have lower confidence in this domain compared to academic skills. Beliefs about physical competence can influence participation in physical activities throughout childhood and adolescence.

Survey data were collected from students (N= 326) in Swedish upper secondary schools (ages 16-18). Academic achievement was measured with student's self-reported grades in one Mathematics-, one English and one Swedish course. Athletic competence was measured with the Perceived Athletic Competence subscale of the Harter's (2012) Self-perception profile [1] and the International Physical Activity Questionnaire for Adolescents (IPAQ-A) [2] for self-reported physical activity.

Pearson's correlation analysis revealed a moderate positive association between athletic competence and IPAQ-A score ($r=.59$, $p<.001$), suggesting that students who perceive themselves as more athletically competent also report higher physical activity levels. However, academic achievement had no significant correlation with athletic competence ($r = -.025$, $p = .654$).

An independent samples t-test was also conducted to compare students perceived athletic competence between AHAS (students with grade A in the three courses, n=41) and the control group (students with B-F grades, n = 285). There was a significant difference in the score for AHAS (M=15.58, SD=5.86) and control group (M=18.66, SD=6.67; $t(324) = -2.841$, $p=.05$ two-tailed) which suggests that AHAS perceive themselves as less athletically competent compared to their peers, although the effect size was small to moderate ($d=-.474$).