

Physical literacy, fitness and health in children

Submission date	Recruitment status	<input type="checkbox"/> Prospectively registered
14/01/2026	No longer recruiting	<input type="checkbox"/> Protocol
Registration date	Overall study status	<input type="checkbox"/> Statistical analysis plan
15/01/2026	Ongoing	<input type="checkbox"/> Results
Last Edited	Condition category	<input type="checkbox"/> Individual participant data
15/01/2026	Other	<input checked="" type="checkbox"/> Record updated in last year

Plain English summary of protocol

Plain English summary of protocol not provided at time of registration.

Contact information

Type(s)

Principal investigator, Public, Scientific

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Additional identifiers

Study information

Scientific Title

Physical literacy, fitness, and health status in school-age children

Acronym

PLFIT

Study objectives

To evaluate the effects of targeted physical literacy based education on physical activity, physical fitness, and body composition in school-age children

Ethics approval required

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Ethics approval(s)

approved 09/09/2024, Ethical Committee of the Faculty of Kinesiology, University of Zagreb (Horvacanski zavoj 15, Zagreb, 10000, Croatia; +38513658666; dekanat@kif.hr), ref: 93/2024

Primary study design

Interventional

Allocation

Randomized controlled trial

Masking

Blinded (masking used)

Control

Active

Assignment

Parallel

Purpose

Prevention, Treatment

Study type(s)

Health condition(s) or problem(s) studied

Physical activity and health status in school-age children

Interventions

The educational intervention, focused on physical literacy (PL), will be implemented within the existing physical education (PE) schedule for the experimental group over a 12-week period. During this time, students will participate in three PE sessions weekly, amounting to a total of 36 lessons. The intervention will incorporate 12 short, original educational videos (3–4 minutes each), each addressing a key topic related to PL or physical health. The video content will be organized into the following themes: two videos covering core PL principles (e.g., movement motivation, confidence, and understanding), three focused on cardiorespiratory fitness, five targeted motor abilities (strength, power, coordination, flexibility), and two addressed general health habits, including nutrition.

Intervention Type

Behavioural

Primary outcome(s)

1. Body composition measured using body fat percentage (bioimpedance analysis) at pre-(September) post- (December) retention (May)

2. Body composition measured using skeletal muscle mass (bioimpedance analysis) at pre- (September) post- (December) retention (May)
3. Cardiovascular endurance measured using multilevel fitness test at pre- (September) post- (December) retention (May)
4. Abdominal strength measured using sit-ups test at pre- (September) post- (December) retention (May)
5. Upper body strength measured using push-ups test at pre- (September) post- (December) retention (May)
6. Directly measured physical activity measured using accelerometry at pre- (September) post- (December) retention (May)
7. Indirectly measured physical activity measured using the Physical Activity Questionnaire for Older Children (PAQ-C) questionnaire at pre- (September) post- (December) retention (May)

Key secondary outcome(s)

1. Physical literacy measured using the Play self questionnaire at pre- (September) post- (December) retention (May)

Completion date

01/03/2026

Eligibility

Key inclusion criteria

Overall health status which allow regular participation in physical education (as defined by official school regulations in Croatia and Bosnia and Herzegovina)

Healthy volunteers allowed

Yes

Age group

Mixed

Lower age limit

7 years

Upper age limit

18 years

Sex

All

Total final enrolment

130

Key exclusion criteria

1. Health issues which prevent children from participating in physical education
2. < 80% of participation in physical education lessons during the study course

Date of first enrolment

16/09/2024

Date of final enrolment

01/06/2025

Locations

Countries of recruitment

Croatia

Sponsor information

Organisation

Ministry of Science, Education and Sports

ROR

<https://ror.org/0507etz14>

Funder(s)

Funder type

Funder Name

Sveučilište u Splitu

Alternative Name(s)

University of Split

Funding Body Type

Government organisation

Funding Body Subtype

Universities (academic only)

Location

Croatia

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Data sharing statement to be made available at a later date

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<u>Participant information sheet</u>	Parental informed consent form in Croatian		15/01/2026	No	Yes