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# Physical literacy, fitness and health in children

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|---|---|---|
| **Submission date**<br>14/01/2026 | **Recruitment status**<br>No longer recruiting | [_] Prospectively registered<br>[_] Protocol |
| **Registration date**<br>15/01/2026 | **Overall study status**<br>Completed | [_] Statistical analysis plan<br>[_] Results |
| **Last Edited**<br>15/01/2026 | **Condition category**<br>Other | [_] Individual participant data<br>[X] 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

**Contact name**
Prof Damir Sekulic

**ORCID ID**
https://orcid.org/0000-0001-8022-7886

**Contact details**
Faculty of Kinesiology, University of Split
Split
Croatia
21000
+385912504664
damir.sekulic@kikfst.eu

## 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
Ethics approval required

## 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
Overal 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? |
|---|---|---|---|---|---|
| Participant information sheet | Parental informed consent form in Croatian | | 15/01/2026 | No | Yes |