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# Psychologically informed physical fitness practice in schools: A field experiment

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# Psychologically informed physical fitness practice in schools: A field experiment

## **Abstract**

### **Objectives**

Physical education could play a role in attenuating the decline in physical activity during the childhood-to-adolescence transition and inspiring children to adopt a lifelong physical activity habit. While psychological theories (e.g., Self-Determination Theory, Achievement Goal Theory) offer pointers for desirable changes to practice norms, experimental tests of the effectiveness of theory-based interventions in school settings are lacking. In this study, we compared the effects of a "traditional" and a "novel" physical education lesson on affective valence, enjoyment, and perceived satisfaction of the psychological needs for autonomy, competence, and relatedness.

### **Design**

Within-subjects field experiment, with two counterbalanced conditions.

### **Method**

The participants were 148 children (4-6th grade, 52% female). Both lessons consisted of practicing aerobic capacity (running), core (curl-ups), and upper-body (push-ups) strength and endurance. In the "traditional" lesson, practice procedures followed FITNESSGRAM™ test instructions. The "novel" lesson incorporated elements designed to address basic psychological needs (e.g., freedom to select preferred running path, positive interactions among peers) and other evidence-supported modifications (e.g., music and video).

### **Results**

Affective valence declined in the "traditional" lesson but remained stable in the "novel" lesson. Enjoyment and need-satisfaction for competence were higher after the "novel" lesson. These differences occurred despite no significant differences in total accelerometer-assessed moderate-to-vigorous physical activity and the intensity of the aerobic components.

### **Conclusions**

Easily implementable, theory-based modifications to physical education practices could improve the experiences derived by students. In turn, experiencing physical education as more pleasant, enjoyable, and need-supportive could raise the odds of long-term physical activity participation.

### **Keywords**

School, Motivational climate, Peer interactions, Psychological needs, Pleasure, Hedonism

### **Disciplines**

Child Psychology | Developmental Psychology | Exercise Science | Kinesiology | School Psychology

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**Comments**

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