

Effects of a Creative Physical Education intervention on social competence and moderate to vigorous physical activity of school aged-children

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INTRODUCTION

Traditional school physical education focuses on physical skills or strategies with an expectation that learning these skills lead to healthier lifestyle outside physical education classes (Kirk, 2013; Kulinna, 2008), while children's overall moderate to vigorous physical activity (MVPA) is widely decreasing (Tremblay et al., 2016). Creative Physical Education (CPE) understands physical education more holistically, as the central pedagogical element of movement is social learning (Quay & Peters, 2012). The current study examined the development of social competence in school physical education (PE) and total moderate to vigorous physical activity (MVPA) participation through a CPE-based intervention (Table 1).

Table 1. The manipulation of CPE-elements.

Team	Game Management	Season of Games	Practice
Control			
Teams selected at random by the teachers	Teachers dictated the progression and game development	Encouraging prosocial behaviour	The most important educational element but at the expense of other elements (team, game)
Only exist for one class at a time	Developed and taught by teachers	Taking responsibility	
Function as a team of champions rather than a champion team	Teacher is a referee	Preventing selfish play	Sessions designed by the teacher including running, jumping, and throwing in different forms of activities, gymnastics, gymnastics with equipment and apparatus, dance, ball games, orienteering, skiing, skating, swimming, and development of physical functional skills
		Avoiding harmful physical contact	
Intervention			
Selected with great care by teachers, thinking about balancing gender, ability, friendships	Students dictated the rate of progression and game development	Familiarizing students with each other	Students in teams design practice sessions focused on motor skills, team strategy, fitness by assessing need for practice in running, jumping, and throwing in different forms of activities, gymnastics, gymnastics with equipment and apparatus, dance, ball games, orienteering, skiing, skating, swimming, and development of physical functional skills
Stay together for entire unit	Developed by the teams using a set of criteria:	Understanding of factors affecting team engagement	
The aim is to function as champion team rather than a team of champions	1. inclusion of specific motor skills 2. maximum participation 3. no separate referee or scorer (everyone plays – teacher is not a referee but a teacher) 4. use of same equipment types by each team (enabling sharing)	Supporting team engagement	
		Cooperation within and between teams	
		Respecting accomplishments of other teams	
		Giving positive feedback considering team goals set by the students	Formation of teams using workbooks (First 4 weeks)
		Discussing improvement of games under teacher supervision	Team name, chant and logo development (First 2 weeks)
			Homework: creating a game based on CPE principles (in small teams across the intervention)

METHODS

Participants were 363 (177 intervention, 186 control) children from public elementary schools in Central Finland (Table 2). The data collection was completed across two measurement points using questionnaires (Currie et al., 2012; Junttila et al., 2006), starting in November 2011 (T0) and continuing until March 2013 (T1).

Table 2. Descriptive statistics of the study variables at T0 and T1.

	1	2	3	4	α	M	SD
1 Social competence T0	-	.16	.06	.04	.79	3.10	.53
2 Social competence T1	.21*	-	-.04	.21**	.80	2.96	.59
3 MVPA T0	-.01	-.07	-	.30***	.88	5.46	1.53
4 MVPA T1	.12	.03	.44***	-	.90	5.49	1.45
α	.85	.85	.78	.84			
M	3.27	3.23	5.52	5.50			
SD	.64	.62	1.46	1.33			

Notes. Descriptive statistics for the intervention group (n = 177) are presented above the diagonal and descriptive statistics for the control group (n = 186) are presented below the diagonal. ***p < .001, **p < .01, *p < .05.

RESULTS

The key findings were that 1) the associations between social competence and MVPA engagement were relatively weak and 2) the 12-month intervention was effective in increasing students' social competence in PE and total MVPA (Fig. 1).

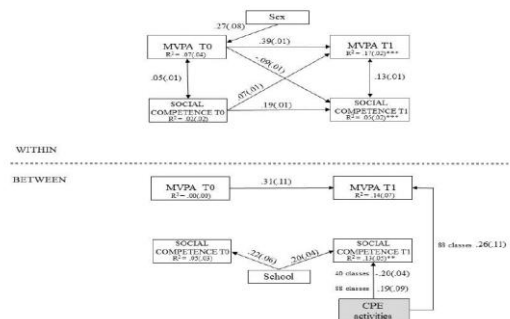


Fig. 1. The standardized parameter estimates of the two-level model.

CONCLUSIONS

CPE teaching practices could provide positive social experiences in PE and increases in total MVPA. However, applying new strategies into actual school settings may take time, and therefore, children need to be given sufficient timeframe to take ownership of the activities.

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