

# Supplementary Materials: Effects of a Theory-Based Education Program to Prevent Overweight in Primary School Children

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Table S1. Overview of the lessons.

Grade	Lesson	Subject	Content
1		Why exercising?	DVD
			Physical activity: balloon jumping
			Keep and discuss physical activity diary
			Intensive heart rate and breathing exercises
2		Tasty from the Food Pyramid	List and discuss dietary habits
			Assignments about the Food Pyramid (Dutch: Schijf van Vijf)
			Experiments with nutrients
3		Exercise and more exercise	Keep and discuss screen time diary
			Physical activity: dance on music
			Inventing games for inside and outside
			Interview with parents or grandparents about games they used to play
4	4	Time for breakfast	Testing the invented games
			List and discuss dietary habits
			Assignments about own breakfast and inventing new breakfast recipes
			Baking and tasting bread
5		Exercise, more exercise and keep exercising	Recognize sports and able to list favorite sports
			Physical activity: pass through game
			Interview with classmate about sport
			Make report about sport
6		Fruit and vegetables	Fruit and vegetables test
			Keep and discuss nutrition diary
			Recognizing fruit and vegetables
			Tasting fruit
7		Healthy choices	Making fruit smoothies
			Develop healthy dietary behaviors
			Physical activity: Commando (game)
			Measuring energy expenditure
			Evaluation of behavior after EF! lessons

Table S1. *Cont.*

Grade	Lesson	Subject	Content
1	Healthy = being fit!		Refresh knowledge from grade 4: question and answer game
			Inventing physical activity games
			Physical activity: pass and through game with music
2	Thick, thin, everybody is unique!		Interview with parents or grandparents about their childhood
			Discussion about peer pressure, fashion and thick/thin
			Assignment to look at own body and character
			Exercise in being positive and giving compliments
3	Investigate your habits		Keep and discuss physical activity, sedentary and dietary scores, both individually and collective
			Make nutrition diary of that day
			Physical activity: follow the leader (game)
4	In balance?		List nutrition and physical activity behavior and energy values
			Assignment about calories
			Physical activity: Dice-exercise game
			Calculate and discuss energy balance
5	5	Drinking and exercising	List and discuss drinking behavior
			Interview about physical activity
			Physical activity: Alphabet-game
			Assignment about labels on drinks
			Make a sport drink in class
6	Exercising and snacking		Snack detective: searching snacks at home and snacks from the Food Pyramid (Dutch: Schijf van Vijf)
			Make a snack-counter
			Bake popcorn
			Make fruit and vegetable skewers
7	To school and back		Keep and discuss physical activity, sedentary and dietary scores, both individually and collective
			Assignment about walking and cycling
			Make a healthy lunch
8	Eating and exercising at home		Physical activity: photographer (game)
			Interview at home about family recipe
			Compare nutrition and physical activity behavior with friends
			Inventing new physical activity games
9	We choose healthy!		Evaluation of behavior after EF! lessons
			Self-test
			Play healthy tag

**Table S2.** Overview of questionnaire items.

Concept	Range/Answer Categories	Items	Example of Question
Demographics	Does not apply	8	Are you a girl or a boy?
Physical activity behavior	Different ranges	10	How many days a week do you walk or bike to school yourself? How long does it usually take to go from home to school?
Sedentary behavior (screen time)	5 to 8 answer categories	4	How many days a week do you watch TV/video/DVD? How long do you usually watch TV/video/DVD a day?
Nutrition behavior	4 to 8 answer categories	11	How many days a week do you have breakfast? <i>This is the meal after getting up in the morning.</i>
			How many days a week do you eat fruit? ( <i>apples, oranges, tangerines, bananas, et cetera</i> ) On the days that you eat fruit, how many portions/servings do you eat usually a day?  <i>Examples of 1 portion/serving of fruit are: 1 apple, 1 banana, 1 peach, 1 kiwi, 2 tangerines, 2 plums, a handful of grapes, cherries or strawberries</i>
Knowledge	3 to 5 categories	7	Breakfast is the most important meal of the day to be good at learning at school.
Cognitive attitude toward the frequency of behavior	5-point Likert scale	7	Do you think that you eat enough vegetables?
Affective attitude	5-point Likert scale	14	I think of having daily breakfast as good I find a breakfast tasteful
Perceived social norm of parents	5-point Likert scale	7	What do you think: Do your parents think that you should have breakfast every day?
Self-efficacy	5-point Likert scale	7	How difficult do you find the following things? Having breakfast every day
Intention	5-point Likert scale	7	Are you planning to have breakfast every day the next half year?

**Table S3.** Estimated mean differences in anthropometric measurements at baseline (T0) and second (T2) follow-up.

	Intervention	Control	Intervention	Control	Difference <sup>2,3</sup> <i>B (95% CI)</i> <sup>5</sup>
	T0	T0	T2 <sup>1</sup>	T2 <sup>1</sup>	
	<i>n = 499</i> <sup>4</sup>	<i>n = 391</i>	<i>n = 348</i>	<i>n = 442</i>	
	<i>Mean ± SD</i>	<i>Mean ± SD</i>	<i>Mean ± SD</i>	<i>Mean ± SD</i>	
BMI SD score	0.56 ± 1.14	0.61 ± 1.12	0.55 ± 1.11	0.57 ± 1.17	0.06 (-0.16–0.28)
Waist SD score	0.43 ± 1.02	0.44 ± 1.02	0.44 ± 1.01	0.43 ± 1.06	0.03 (-0.17–0.24)
Hip SD score	0.09 ± 1.91	0.02 ± 1.10	0.24 ± 1.01	0.21 ± 1.07	-0.03 (-0.29–0.24)
Hip/Waist ratio	0.26 ± 1.27	0.46 ± 1.02	0.32 ± 0.90	0.38 ± 0.85	0.13 (-0.06–0.33)

<sup>1</sup> Follow-up outcomes presented for the control group and intervention group are unadjusted;

<sup>2</sup> Outcomes were predicted by fixed effects for group (control *vs.* intervention), baseline measurements at T0, sex, age; <sup>3</sup> Regression estimates were calculated accounting for clustering of observations within schools; <sup>4</sup> *n* varies due to missing data; <sup>5</sup> CI = confidence interval.