Supplementary File 6a. Intervention effects on motivational mediators at post-intervention assessment.

Control, Mean (SD)				p	Intervention, Mean (SD)				p	Intervention – Control Adjusted Difference in Change		p	Cohen's d	ICC			
Baseline		Post-intervention			Baseline		Post-intervention			Estimate	95% CI	1		Student	Class	Teacher	School
= 738	2.09 (0.88	n = 630	2.05 (0.87)	0.096	n = 706	2.0 (0.84)	n = 625	1.92 (0.80)	0.026	0.06	-0.03 to 0.14	0.188	0.06	0.46	0.02	0.01	0.01
1 = 738	3.97 (0.87)	n = 630	3.80 (0.86)	< 0.001	n = 706	4.03 (0.80)	n = 624	3.89 (0.82)	< 0.001	-0.03	-0.10 to 0.04	0.375	-0.03	0.53	0.04	0.00	-
1 = 738	2.85 (0.76)	n = 629	2.70 (0.73)	< 0.001	n = 706	2.89 (0.80)	n = 625	2.73 (0.78)	<0.001	-0.01	-0.1 to 0.09	0.877	-0.01	0.44	0.02	0.02	-
= 723	3.51 (1.32)	n = 610	3.50 (1.34)	0.492	n = 697	3.44 (1.29)	n = 617	3.48 (1.20)	0.566	0.02	-0.14 to 0.18	0.805	0.01	0.37	0.04	0.00	0.02
1 = 723	4.54 (1.51)	n = 610	4.38 (1.50)	0.007	n = 697	4.57 (1.41)	n = 617	4.37 (1.42)	<0.001	-0.03	-0.17 to 0.13	0.729	-0.02	0.56	0.02	0.01	0.03
1 = 723	4.19 (1.50)	n = 610	4.05 (1.47)	0.179	n = 697	4.37 (1.46)	n = 617	4.22 (1.34)	0.012	-0.05	-0.23 to 0.13	0.556	-0.03	0.44	0.03	0.01	-
= 719	2.85 (1.33)	n = 616	2.70 (0.73)	0.809	n = 693	2.65 (1.36)	n = 607	2.72 (0.78)	0.638	-0.03	-0.23 to 0.13	0.743	-0.02	0.33	0.06	0.01	-
= 726	4.31 (1.31)	n = 631	4.37 (1.32)	0.340	n = 698	4.53 (1.27)	n = 616	4.60 (1.17)	0.204	0.03	-0.12 to 0.17	0.688	0.02	0.45	0.06	0.01	-
= 728	1.68 (0.86)	n = 624	1.67 (0.82)	0.732	n = 704	1.65 (0.82)	n = 621	1.59 (0.76)	0.164	-0.03	-0.15 to 0.07	0.522	-0.03	0.44	0.01	0.01	-
= 729	3.55 (0.88)	n = 624	3.43 (0.88)	0.003	n = 704	3.50 (0.85)	n = 621	3.41 (0.88)	0.028	0.03	-0.06 to 0.13	0.497	0.03	0.52	0.02	0.00	-
= 729	2.40 (0.85)	n = 624	2.24 (0.80)	<0.001	n = 704	2.32 (0.86)	n = 621	2.30 (0.84)	0.794	0.15	0.04 to 0.25	0.005	0.18	0.47	0.01	0.02	0.01
	= 738 = 738 = 738 = 723 = 723 = 723 = 726 = 726	Baseline  = 738   2.09 (0.88   = 738   3.97 (0.87)   = 738   2.85 (0.76)   = 723   3.51 (1.32)   = 723   4.54 (1.51)   = 723   4.19 (1.50)   = 719   2.85 (1.33)   = 726   4.31 (1.31)   = 728   1.68 (0.86)   = 729   3.55 (0.88)   = 729   2.40 (0.85)	= 738   2.09 (0.88   n = 630   n = 629   n = 723   3.51 (1.32)   n = 610   n = 726   4.31 (1.31)   n = 631   n = 631   n = 631   n = 624   n = 729   3.55 (0.88)   n = 624   n =	= 738   2.09 (0.88   n = 630   2.05 (0.87)   = 738   3.97 (0.87)   n = 630   3.80 (0.86)   = 738   2.85 (0.76)   n = 629   2.70 (0.73)   = 723   3.51 (1.32)   n = 610   3.50 (1.34)   = 723   4.54 (1.51)   n = 610   4.38 (1.50)   = 723   4.19 (1.50)   n = 610   4.05 (1.47)   = 719   2.85 (1.33)   n = 616   2.70 (0.73)   = 726   4.31 (1.31)   n = 631   4.37 (1.32)   = 728   1.68 (0.86)   n = 624   1.67 (0.82)   = 729   3.55 (0.88)   n = 624   3.43 (0.88)	Baseline         Post-intervention           = 738         2.09 (0.88)         n = 630         2.05 (0.87)         0.096           = 738         3.97 (0.87)         n = 630         3.80 (0.86)         <0.001	Baseline         Post-intervention         Baseline           = 738         2.09 (0.88         n = 630         2.05 (0.87)         0.096         n = 706           = 738         3.97 (0.87)         n = 630         3.80 (0.86)         <0.001	Baseline         Post-intervention         Baseline           = 738         2.09 (0.88         n = 630         2.05 (0.87)         0.096         n = 706         2.0 (0.84)           = 738         3.97 (0.87)         n = 630         3.80 (0.86)         <0.001	Baseline         Post-intervention         Baseline         Post-intervention           = 738         2.09 (0.88         n = 630         2.05 (0.87)         0.096         n = 706         2.0 (0.84)         n = 625           = 738         3.97 (0.87)         n = 630         3.80 (0.86)         <0.001	Baseline         Post-intervention           Baseline         Post-intervention           Baseline         Post-intervention           Baseline         Post-intervention           Baseline         Post-intervention           = 738         2.09 (0.88)         n = 630         2.05 (0.87)         0.096         n = 706         2.0 (0.84)         n = 625         1.92 (0.80)           = 738         3.97 (0.87)         n = 630         3.80 (0.86)         <0.001	Baseline         Post-intervention         Baseline         Post-intervention           = 738         2.09 (0.88         n = 630         2.05 (0.87)         0.096         n = 706         2.0 (0.84)         n = 625         1.92 (0.80)         0.026           = 738         3.97 (0.87)         n = 630         3.80 (0.86)         <0.001	Baseline Post-intervention Baseline Post-intervention Estimate    738   2.09   (0.88   n = 630   2.05   (0.87)   0.096   n = 706   2.0   (0.84)   n = 625   1.92   (0.80)   0.026   0.06     738   3.97   (0.87)   n = 630   3.80   (0.86)   <0.001   n = 706   4.03   (0.80)   n = 624   3.89   (0.82)   <0.001   -0.03     738   2.85   (0.76)   n = 629   2.70   (0.73)   <0.001   n = 706   2.89   (0.80)   n = 625   2.73   (0.78)   <0.001   -0.01     723   3.51   (1.32)   n = 610   3.50   (1.34)   0.492   n = 697   3.44   (1.29)   n = 617   3.48   (1.20)   0.566   0.02     723   4.54   (1.51)   n = 610   4.38   (1.50)   0.007   n = 697   4.57   (1.41)   n = 617   4.37   (1.42)   <0.001   -0.03     723   4.19   (1.50)   n = 610   4.05   (1.47)   0.179   n = 697   4.37   (1.46)   n = 617   4.22   (1.34)   0.012   -0.05     724   4.31   (1.31)   n = 631   4.37   (1.32)   0.340   n = 698   4.53   (1.27)   n = 616   4.60   (1.17)   0.204   0.03     725   4.31   (1.31)   n = 631   4.37   (1.32)   0.732   n = 704   1.65   (0.82)   n = 621   1.59   (0.76)   0.164   -0.03     728   1.68   (0.86)   n = 624   3.43   (0.88)   0.003   n = 704   3.50   (0.85)   n = 621   3.41   (0.88)   0.028   0.03     729   3.55   (0.88)   n = 624   3.43   (0.88)   0.003   n = 704   3.50   (0.85)   n = 621   3.41   (0.88)   0.028   0.03     720   3.55   (0.88)   n = 624   3.43   (0.88)   0.003   n = 704   3.50   (0.85)   n = 621   3.41   (0.88)   0.028   0.03     720   3.55   (0.88)   n = 624   3.43   (0.88)   0.003   n = 704   3.50   (0.85)   n = 621   3.41   (0.88)   0.028   0.03     720   3.55   (0.88)   n = 624   3.43   (0.88)   0.003   n = 704   3.50   (0.85)   n = 621   3.41   (0.88)   0.028   0.03     720   3.55   (0.88)   n = 624   3.43   (0.88)   0.003   n = 704   3.50   (0.85)   n = 621   3.41   (0.88)   0.028   0.03     720   3.55   (0.88)   n = 624   3.43   (0.88)   0.003   n = 704   3.50   (0.85)   n = 621   3.41   (0.88)   0.028   0.03     721   722   723   723   723   723   723   723   723   723   723   723   723   723   723   723   7	Baseline   Post-intervention   Baseline   Post-intervention   Estimate   95% CI	Baseline   Post-intervention   Post-intervention   Estimate   95% CI	Baseline         Post-intervention         Baseline         Post-intervention         Estimate         95% CI           = 738         2.09 (0.88         n = 630         2.05 (0.87)         0.096         n = 706         2.0 (0.84)         n = 625         1.92 (0.80)         0.026         0.06         -0.03 to 0.14         0.188         0.06           = 738         3.97 (0.87)         n = 630         3.80 (0.86)         <0.001	Baseline   Post-intervention   Post-intervention   Post-intervention   Estimate   95% CI   Student   Student   Student   Student   Post-intervention   Estimate   95% CI   Student   Student   Student   Post-intervention   Estimate   95% CI   Student   Student   Student   Post-intervention   Estimate   95% CI   Student   Student   Post-intervention   Estimate   95% CI   Post-intervention   Post-intervention   Post-intervention   Estimate   95% CI   Post-intervention   Estimate   95% CI   Post-intervention   Post-intervent	Baseline   Post-intervention   Post-intervention   Estimate   95% CI   Sudem   Class	Baseline   Post-intervention   Baseline   Post-intervention   Estimate   95% CI   Student   Class   Teacher

*Note*: *Note*: Motivation variables and leisure-time physical activity frequency measured on scales from 1 to 5. Student need satisfaction and perceptions of teacher behaviour measured on scales from 1 to 7. Leisure-time physical activity duration measured on a scale from 1 to 8. Cohen's d = adjusted difference in change / pooled SD at baseline. "-" indicates that adjustments for school level clustering did not lead to a significant decrease in the chi-squared value.

Supplementary File 6b. Intervention effects on well-being outcomes and motivational mediators at maintenance assessment.

Variable Motivation and Needs Satisfaction in PE	Control, Mean (SD)				p	Intervention, Mean (SD)				p	Intervention – Control Adjusted Difference in Change		p	Cohen's d	ICC			
	Bas	seline	Maintenance		1	Baseline		Maintenance			Estimate	95% CI	1		ID	Class	Teacher	Schoo
Amotivation	n = 738	2.09 (0.88)	n = 525	2.10 (0.91)	0.239	n = 706	2.00 (0.84)	n = 507	2.02 (0.80)	0.471	0.05	-0.02 to 0.13	0.185	0.05	0.46	0.02	0.00	0.01
Autonomous Motivation	n = 738	3.97 (0.86)	n = 525	3.74 (0.87)	0.013	n = 706	4.03 (0.80)	n = 507	3.82 (0.83)	<0.001	0.01	-0.08 to 0.11	0.767	0.01	0.54	0.03	0.02	-
Controlled Motivation	n = 738	2.84 (0.76)	n = 525	2.70 (0.70)	0.001	n = 706	2.88 (0.80)	n = 507	2.79 (0.76)	0.182	0.06	-0.02 to 0.14	0.149	0.07	0.42	0.03	0.02	-
Autonomy Need Satisfaction	n = 723	3.51 (1.32)	n = 496	3.51 (1.35)	0.292	n = 697	3.45 (1.35)	n = 493	3.65 (1.26)	0.014	0.07	-0.06 to 0.21	0.333	0.05	0.30	0.04	0.00	0.04
Competence Need Satisfaction	n = 723	4.54 (1.51)	n = 496	4.44 (1.47)	0.911	n = 697	4.57 (1.41)	n = 493	4.48 (1.36)	0.280	-0.04	-0.18 to 0.09	0.574	-0.03	0.55	0.03	0.00	0.03
Relatedness Need Satisfaction	n = 723	4.19 (1.50)	n = 496	4.16 (1.49)	0.498	n = 697	4.37 (1.46)	n = 493	4.37 (1.33)	0.636	-0.05	-0.2 to 0.11	0.473	-0.03	0.39	0.03	0.00	0.02
Student Perceptions of PE Teacher Behavior																		
Controlling behavior	n = 719	2.85 (1.34)	n = 511	2.70 (0.71)	0.520	n = 693	2.65 (1.36)	n = 512	2.79 (0.76)	0.010	0.12	-0.06 to 0.29	0.181	0.09	0.27	0.07	0.01	-
Supportive behavior	n = 726	4.31 (1.31)	n = 518	4.47 (1.38)	0.080	n = 698	4.53 (1.27)	n = 512	4.47 (1.26)	0.397	-0.16	-0.32 to 0.01	0.059	-0.12	0.43	0.09	0.00	0.03
Motivation towards Leisure- time Physical Activity																		
Amotivation	n = 728	1.68 (0.86)	n = 503	1.75 (0.88)	0.304	n = 704	1.65 (0.82)	n = 501	1.65 (0.76)	0.496	-0.05	-0.14 to 0.04	0.210	-0.03	0.41	0.03	0.00	-
Autonomous Motivation	n = 729	3.55 (0.88)	n = 503	3.42 (0.92)	0.027	n = 704	3.50 (0.85)	n = 501	3.43 (0.92)	0.800	0.06	-0.01 to 0.13	0.094	0.03	0.53	0.01	0.00	-
Controlled Motivation	n = 729	2.40 (0.85)	n = 503	2.33 (0.90)	0.235	n = 704	2.32 (0.86)	n = 501	2.35 (0.86)	0.813	0.04	-0.03 to 0.13	0.269	0.15	0.45	0.00	0.02	-

*Note*: Motivation variables and leisure-time physical activity frequency measured on scales from 1 to 5. Student need satisfaction and perceptions of teacher behaviour measured on scales from 1 to 7. Leisure-time physical activity duration measured on a scale from 1 to 8. Cohen's d = adjusted difference in change / pooled SD at baseline. "-" indicates that adjustments for school level clustering did not lead to a significant decrease in the chi-squared value.