

Supplemental table 2: Timing of measurements, physical activity outcome measure used and results of included studies aimed at increasing physical activity in **children** (named reference is the main reference, all reference numbers relate to the study).

Study Ref	Timing of measurements	PA measure*	INT results	CON results	INT vs CON
<b>EDUCATIONAL interventions</b>					
Christodoulos , 2006 <sup>w1</sup>	Post-intervention	PA recall questionnaire <b>A.</b> Total MVPA (hrs/wk): adjusted mean  <b>B.</b> Organised MVPA (hrs/wk): adjusted mean  <b>C.</b> Meeting PA guideline (%)	<b>A.</b> 7.5 (SE 0.5)  <b>B.</b> 3.5 (SE 0.3)  <b>C.</b> Increased from 32.3% to 77.4% (p<0.0001)	<b>A.</b> 6.3 (SE 0.4)  <b>B.</b> 2.5 (SE 0.3)  <b>C.</b> Increased from 26.5% to 55.1% (p<0.004)	<b>A.</b> ns  <b>B.</b> p<0.05  <b>C.</b> Difference at post-intervention: p<0.043
Fitzgibbon, 2006 <sup>w2</sup>	Post-intervention 2-year follow-up	Parent-report questionnaire <b>A.</b> Exercise frequency (mean % doing PA ≥7 times/week):  <b>B.</b> Exercise intensity (Borg scale)	<b>A.</b> Post-int: 29.6 (SE 3.6); Follow-up: 28.6 (SE 4.1)  <b>B.</b> Post-int: 4.5 (SE 0.3); Follow-up: 4.3 (SE 0.2)	<b>A.</b> Post-int: 29.3 (SE 3.8); Follow-up: 17.8 (SE 4.3)  <b>B.</b> Post-int: 4.7 (SE 0.3); Follow-up: 4.6 (SE 0.2)	<b>A.</b> Post-int: 0.28 (95% CI -11.2, 11.8), ns; Follow-up: 10.8 (95% CI -2.6, 24.1), ns  <b>B.</b> Post-int: -0.18 (95% CI -1.1, 0.8), ns; Follow-up:-0.3 (95% CI -0.8, 0.2), ns
Harrison 2006 <sup>w3</sup>	Post-intervention	1-day PDPAR: Mean number of 30-min blocks/day of MVPA	3.1 (SE 0.4) to 5.9 (SE 0.3)	3.0 (SE 0.4) to 5.1 (SE 0.3)	Adjusted difference: 0.8 (95% CI 0.1, 1.6), p=0.03
Manios, 2006 <sup>w4-7</sup>	Post-intervention 4-year follow up	Parent- and child-reported questionnaire (PA outside of school): Mean MVPA mins/week	<b>Boys:</b> Post-int: 510.2 (SD 404.6); Follow-up: 112.3 (SD 78.9)  <b>Girls:</b> Post-int: 156.0 (SD 121.0); Follow-up: 36.2 (SD 34.7)	<b>Boys:</b> Post-int: 350.7 (SD 308.0); Follow-up: 96.3 (SD 67.0)  <b>Girls:</b> Post-int: 137.3 (SD 118.9); Follow-up: 33.1 (SD 31.2)	Post-int: p<0.001; Follow-up: p=0.03; Group*time: p=0.001  Post-int: ns; Follow-up: ns; Group*time: ns

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Fairclough, 2005 <sup>w8-9</sup>	Mid-intervention (weekly) Post-intervention	<b>A.</b> Heart rate monitors: mean % of time in PE spent in MVPA  <b>B.</b> SOFIT: Mean % of time in PE spent in MVPA during intervention period	<b>A.</b> 33.2 (SD 7.4) at baseline, weekly means ranged from 35.0 (SD 19.1) to 44.9 (SD 17.1)  <b>B.</b> 18.5 (SD 4.2)	<b>A.</b> 29.2 (SD 20.6) at baseline, weekly means ranged from 26.5 (SD 21.9) to 31.5 (SD 22.3)  <b>B.</b> 13.5 (SD 2.2)	<b>A.</b> Main effect: p=0.008  <b>B.</b> p=0.047
Fitzgibbon, 2005 <sup>w10</sup>	Post-intervention 12M and 24M follow-up	Parent-report  <b>A.</b> Exercise frequency (mean % doing PA $\geq$ 7 times/week)  <b>B.</b> Exercise intensity (Borg scale)	<b>A.</b> Post-int: 43.8 (SE 4.3); 12M: 45.0 (SE 5.3); 24M: 39.2 (SE 5.4)  <b>B.</b> Post-int: 5.7 (SE 0.1); 12M: 5.3 (SE 0.3); 24M: 4.7 (SE 0.4)	<b>A.</b> Post-int: 43.2 (SE 4.1); 12M: 55.5 (SE 5.1); 24M: 38.4 (SE 5.2)  <b>B.</b> Post-int: 5.5 (SE 0.1); 12M: 5.6 (SE 0.3); 24M: 5.4 (SE 0.4)	<b>A.</b> Post-int: 0.6 (-12.6, 13.8), ns; 12M: -10.6 (-27.1, 6.0), ns; 24M: 0.8 (-16.0, 17.6), ns  <b>B.</b> Post-int: 0.14 (-0.3, 0.5), ns; 12M: -0.3 (-1.3, 0.8), ns; 24M: -0.6 (-1.8, 0.5), ns
French, 2005 <sup>w11</sup>	Mid-intervention (1 year after baseline) Post-intervention	PA Checklist Interview: WBPA score	Increased from 448 to 472 (mid) to 531	Increased from 507 to 539 (mid) to 555	Adjusted difference: 49, ns
Kelder, 2005 <sup>w12</sup>	Post-intervention	SOFIT: % of time in PE spent in MVPA	INT (1&2) increased from 29.5 to 56.8	Decreased from 47.8 to 31.3	p=0.001
Palmer, 2005 <sup>w13</sup>	Post-intervention (for INT, before CON received INT)	Weekly activity checklist (WAC): weekly energy expenditure (METS)	Increased from 100.9 (SD 83.8) to 123.5 (SD 88.4), p=0.024	Increased from 112.2 (SD 94.8) to 142.7 (SD 122.3), p=0.025	ns for main effects
Sääkslahti, 2004 <sup>w14</sup>	Mid-intervention (12M, 18M, 24M, 30M) Post-intervention (36M); follow-up (42M)	PA diary completed by mother for weekend PA: mean time spent in high activity play (hrs/wk)	Post-intervention: 3.2 (SD 2.5)  6M follow-up: 4.1 (SD 3.6)	Post-intervention: 3.3 (SD 2.3)  6M follow-up: 3.6 (SD 2.4)	ns  ns

Study Ref	Timing of measurements	PA measure*	INT results	CON results	INT vs CON
Baranowski, 2003 <sup>w15</sup>	Post-intervention	<b>A.</b> Accelerometer: adjusted mean mins of MVPA  <b>B.</b> GEMS Activity Questionnaire (GAQ): mean MET-adjusted score	<b>A.</b> 67.5 (SD 7.6)  <b>B.</b> 5.1 (SD 0.4)	<b>A.</b> 74.8 (SD 8.9)  <b>B.</b> 4.3 (SD 0.5)	<b>A.</b> Estimated ratio: -7.3 (SE 11.8), ns  <b>B.</b> Estimated ratio: 0.8 (SE 0.6), ns
Beech, 2003 <sup>w16</sup>	Post-intervention	CSA accelerometer: mean mins in MVPA from 12 noon to 6pm	INT 1: 72.0 (SE 8.2) INT 2: 78.8 (SE 8.2)  INT 1 vs. INT 2: difference: 6.8 (SE 11.8), ns	67.5 (SE 8.5)	Difference (INT 1 & 2 vs CON): -6.8 (SE 11.7), ns
Harvey-Berino, 2003 <sup>w17</sup>	Post-intervention	Accelerometer: Vector magnitude/hr (change from baseline)	-2571 (SD 8025)	-1780 (SD 9090)	ns
Pangrazi, 2003 <sup>w18</sup>	Post-intervention	Pedometer: mean step counts	INT 1: 12,763 (SD 3833) INT 2: 12,598 (SD 4026)	CON 1: 12,401 (SD 3920) CON 2: 11,180 (SD 4262)	INT 1 vs CON 1: ns INT 2 vs CON 2: ns INT 1 vs CON 2: p=0.01 INT 2 vs CON 2: p=0.035
Story, 2003 <sup>w19</sup>	Post-intervention	<b>A.</b> Accelerometer: mean mins of MVPA  <b>B.</b> GEMS PA Questionnaire (GAQ): met-adjusted score	<b>A.</b> 119.0 (SE 10.1)  <b>B.</b> 4.6 (SE 0.3)	<b>A.</b> 116.1 (SE 9.2)  <b>B.</b> 4.3 (SE 0.3)	Adjusted mean difference: <b>A.</b> 2.9 (SE 13.7), ns <b>B.</b> 0.3 (SE 0.5), ns
Warren, 2003 <sup>w20</sup>	Post-intervention	<b>A.</b> Parent questionnaire on general activity outside school  <b>B.</b> Parent-completed weekend PA diary	<i>Data not presented</i>	<i>Data not presented</i>	No intervention effect observed on PA patterns outside of school ( <i>data not presented</i> )
Harrell, 1996 <sup>w21</sup>	Post-intervention	Questionnaire: mean PA score <b>A.</b> Individual-level analyses  <b>B.</b> School-level analyses	<b>A.</b> +1.89 (SE 1.5)  <b>B.</b> <i>Data not presented</i>	<b>A.</b> -0.76 (SE 1.3)  <b>B.</b> <i>Data not presented</i>	<b>A.</b> Mean difference: 3.9 (95% CI -0.2, 8.0), ns  <b>B.</b> Favoured INT: mean difference: 3.7 (95% CI 0.4, 7.1)

<b>Study Ref</b>	<b>Timing of measurements</b>	<b>PA measure*</b>	<b>INT results</b>	<b>CON results</b>	<b>INT vs CON</b>
Howard, 1996 <sup>w22</sup>	10-11M follow-up (1 year from baseline) - no immediate post-intervention measurement	PA questionnaire: mean number of times/week of $\geq 30$ -mins PA	Decreased 7.7 (SD 7.5) to 5.9 (SD 6.4)	Increased from 5.1 (SD 7.9) to 10.4 (SD 12.4)	ns
Baranowski, 1990 <sup>w23</sup>	Post-intervention	Stanford 7-day recall <b>A.</b> Energy expenditure: mean METS  <b>B.</b> Energy expenditure: mean kcal	<b>A.</b> Decreased from 238.1 (SD 22.3) to 231.2 (SD 14.3)  <b>B.</b> Increased from 9559 to 9684	<b>A.</b> Increased from 231.2 (SD 12.0) to 237.2 (SD 21.8)  <b>B.</b> Increased from 10,226 to 11,031	<b>A.</b> p<0.01 (favouring CON)  <b>B.</b> p<0.01 (favouring CON)
<b>ENVIRONMENTAL interventions</b>					
Verstraete, 2006 <sup>w24</sup>	Post-intervention	Accelerometer <b>A.</b> Morning recess: mean % of time spent in MVPA  <b>B.</b> Lunch break: mean % of time spent in MVPA	<b>A.</b> Decreased from 56.6 (SD 29.4) to 53.4 (SD 25.6)  <b>B.</b> Increased from 47.9 (SD 24.4) to 60.7 (SD 22.0)	<b>A.</b> Decreased from 55.9 (SD 22.9) to 43.5 (SD 27.6)  <b>B.</b> Decreased from 54.9 (SD 23.9) to 44.7 (SD 21.9)	<b>A.</b> p<0.01 (gender interaction showing effects only for girls).  <b>B.</b> p<0.001
Stratton, 2005 <sup>w25</sup>	Post-intervention	Heart rate monitors: mean % of time in MVPA during school playtime	Increased from 36.7 (SD 23.9) to 50.3 (SD 28.9)	Decreased from 39.9 (SD 21.1) to 33.4 (SD 18.4)	p<0.01
Stratton, 2002 <sup>w26</sup>	Post-intervention	Heart rate monitoring <b>A.</b> Mean rate of energy expenditure during playtime  <b>B.</b> Total energy expenditure during playtime	<i>Data not presented</i>	<i>Data not presented</i>	<b>A.</b> Increase 7.8% higher in INT than CON, p≤0.02  <b>B.</b> Increase 17% higher in INT than CON, (p≤0.02).

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Stratton, 2000 <sup>w27</sup>	Post-intervention	Heart rate monitoring <b>A.</b> mean % of time spent in MVPA during school playtime  <b>B.</b> mean % of time spent in VPA during school playtime	<b>A.</b> Increased from 35.1 (SD 17.7) to 46.2 (SD 18.1)  <b>B.</b> Increased from 5.3 (SD 6.8) to 10.0 (SD 10.8)	<b>A.</b> Decreased from 40.5 (SD 14.8) to 39.1 (SD 15.8)  <b>B.</b> Decreased from 7.0 (SD 7.8) to 6.8 (SD 8.3)	ns  ns
<b>MULTI-COMPONENT interventions</b>					
Jurg, 2006 <sup>w28</sup>	Post-intervention	Questionnaire (child-report) <b>A.</b> Minutes of MPA  <b>B.</b> Meeting PA guideline	<b>A.</b> Increased in grades 4 and 5, slight decrease in grade 6.  <b>B. Data not presented</b>	<b>A.</b> Decreased in all grades (significant decrease Grade 6).  <b>B. Data not presented</b>	<b>A.</b> Standardised $\beta$ : 0.11 (p<0.05); stratified analyses showed significant effect only in Grade 6 ( $\beta$ 0.22, p<0.001)  <b>B.</b> OR 1.6 (95% CI 1.0 to 2.6); stratified analyses showed significant effect only in Grade 6 (OR 4.3, 95% CI 1.8 to 10.3).
Reilly, 2006 <sup>w29</sup>	Post-intervention	Accelerometer <b>A.</b> Mean counts per minute  <b>B.</b> Median % of time spent in MVPA	<b>A.</b> 809 (SD 179)  <b>B.</b> 3.5 (range 0.5-12.4)	<b>A.</b> 899 (SD 218)  <b>B.</b> 4.1 (range 0.6-12.1)	ns  ns
Coleman, 2005 <sup>w30</sup>	Mid-intervention (6M, 12M, 18M, 24M)  Post-intervention (32M)	SOFIT <b>A.</b> % of time in PE spent in MVPA  <b>B.</b> % of time in PE spent in VPA	<b>A.</b> 6M: 52; 12M: 56; 18M: 57; 24M: 55; 32M: 60  <b>B.</b> 6M: 16; 12M: 16; 18M: 13; 24M: 12; 32M: 12	<b>A.</b> 6M: 43; 12M: 53; 18M: 54; 24M: 44; 32M: 63  <b>B.</b> 6M: 15; 12M: 13; 18M: 12; 24M: 6; 32M: 10	<b>A.</b> 6M: ns; 12M: p<0.05; 18M: ns; 24M: p<0.05; 32M: ns  <b>B.</b> 6M: ns; 12M: p<0.05; 18M: ns; 24M: p<0.05; 32M: p<0.05.

<b>Study Ref</b>	<b>Timing of measurements</b>	<b>PA measure*</b>	<b>INT results</b>	<b>CON results</b>	<b>INT vs CON</b>
Paradis, 2005 <sup>w31,32</sup>	Mid-intervention (24M) (Post-intervention cross-sectional only).	7-day recall (parent-report for grades 1-3, child-report for grades 4-6): adjusted mean frequency of episodes of $\leq$ 15mins PA	Increased from 20.6 (SE 1.1) to 25.4 (SE 1.5)	Increased from 17.6 (SE 2.0) to 22.1 (SE 2.7)	ns
Caballero, 2003 <sup>w33-36</sup>	Post-intervention	<b>A.</b> Previous 24-hr questionnaire: activity index  <b>B.</b> accelerometer (sub-sample): Vector magnitude/min	<b>A.</b> Decreased from 0.35 to 0.27  <b>B.</b> Decreased from 282.0 to 267.2	<b>A.</b> Decreased from 0.35 to 0.24  <b>B.</b> Decreased from 303.1 to 246.8	<b>A.</b> Mean difference: 0.04 (95% CI 0.01, 0.06) p=0.001  <b>B.</b> Mean difference: 20.4 (05% CI -19.1, 59.9), ns
Pate, 2003 <sup>w37</sup>	Mid-intervention (during 1 <sup>st</sup> year of intervention) Post intervention (3-4M after end of intervention)	PDPAR – out of school PA <b>A.</b> MVPA: Average number of 30-min blocks  <b>B.</b> VPA: Average number of 30-min blocks	<b>A.</b> Post-intervention: boys: 2.3 (SE 0.2), girls: 1.8 (SE 0.2)  <b>B.</b> Post-intervention: boys: 1.8 (SE 0.2), girls: 1.1 (SE 0.2)	<b>A.</b> Post-intervention: boys: 3.2 (SE 0.2), girls: 2.1 (SE 0.2)  <b>B.</b> Post-intervention: boys: 2.4 (SE 0.2), girls: 1.1 (SE 0.1)	<b>A.</b> Both ns  <b>B.</b> Both ns
Van Beurden, 2003 <sup>w38</sup>	Post-intervention	SOFIT (during PE) <b>A.</b> mean % time spent in MVPA  <b>B.</b> mean % time spent in VPA	<i>Data not presented</i>	<i>Data not presented</i>	<b>A.</b> 4.5% higher increase, ns  <b>B.</b> 3.3% higher increase (p=0.008)
Sahota, 2001 <sup>w39,40</sup>	Post-intervention	Questionnaire - PA outside of school (Frequency of PA during last week)	<i>Data not presented</i>	<i>Data not presented</i>	Weighted mean difference: -0.2 (95% CI -0.4 to 0.1) favouring INT, ns

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Sallis, 1997 <sup>w41-43</sup>	Post-intervention	<p><b>A.</b> Accelerometer (outside school) – mean activity counts/hr</p> <p><b>B.</b> 1-day recall (outside school) – summary score</p> <p><b>C.</b> SOFIT (during PE): mean minutes in MVPA per week</p>	<p><b>A &amp; B.</b> Results displayed in paper separately for boys and girls for each INT group</p> <p><b>C.</b> INT 1: 40.2 (95% CI 36.8, 43.7); INT 2: 32.7 (95% CI 29.1, 36.2)</p>	<p><b>A &amp; B.</b> Results displayed separately for boys and girls</p> <p><b>C.</b> 17.8 (95% CI 13.2, 22.3)</p>	<p><b>A &amp; B.</b> No significant intervention effect for boys or girls on weekdays or at weekend.</p> <p><b>C.</b> INT 2&gt;INT 1&gt;CON: p=0.001, ns when adjusted for lesson length</p>
McKenzie, 1996 <sup>w44-47</sup>	Post-intervention 1-year, 2-year and 3-year follow-up	<p>SAPAC - used from Grade 5</p> <p><b>A.</b> Minutes spent in VPA</p> <p><b>B.</b> Total PA</p> <p><b>C.</b> SOFIT (during PE) - used up until Grade 5 – adjusted mean minutes spent in MVPA</p>	<p>INT1 &amp; INT2</p> <p><b>A.</b> Decreased over time, 3-yr follow-up: 30.2 (SE 1.3)</p> <p><b>B.</b> Decreased over time, 3-yr follow-up: 121.1 (SE 2.1)</p> <p><b>C.</b> Increased from 10.5 (SE 0.4) to 14.0 (SE 0.3)</p>	<p><b>A.</b> Decreased over time, 3-yr follow-up: 22.1 (SE 1.4)</p> <p><b>B.</b> Decreased over time, 3-yr follow-up: 125.4 (SE 2.6)</p> <p><b>C.</b> Increased from 10.0 (SE 0.5) to 11.1 (SE 0.4)</p>	<p><b>A.</b> Adjusted difference at 3-yr: 8.8 (SE 2.7), p=0.001</p> <p><b>B.</b> Adjusted difference at 3-yr: -2.4 (SE 4.5), ns</p> <p><b>C.</b> Net effect: 2.5 (SE 0.6), p=0.003</p>

Notes: M: Months; PA: Physical activity; (M)VPA: Moderate-vigorous/vigorous physical activity; WBPA: Weight-bearing physical activity; PE: Physical education; CSA: Computer Science Applications (now known as MTI); (PD)PAR: (Previous Day) Physical Activity Recall; SAPAC: Self-administered PA checklist; SOFIT: System for Observing Fitness Instruction Time; CON: Control group; INT: Intervention group; ns: Non-significant; SD: standard deviation; SE: standard error.

\*refers to overall PA unless specified.