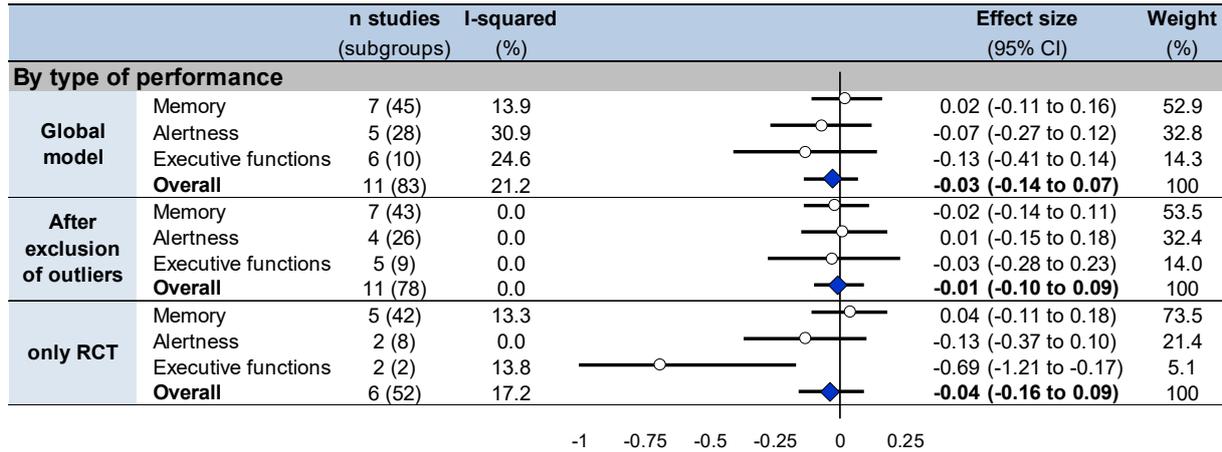


# Supplementary Figures

## Figure S1. Summary of meta-analyses on cognitive performance for each cognitive function at baseline (t0) between groups

Each summary of meta-analysis is presented in three conditions: global model with all the studies, after exclusion of outliers (studies not evenly distributed around the funnel plot) and with only randomized controlled trials

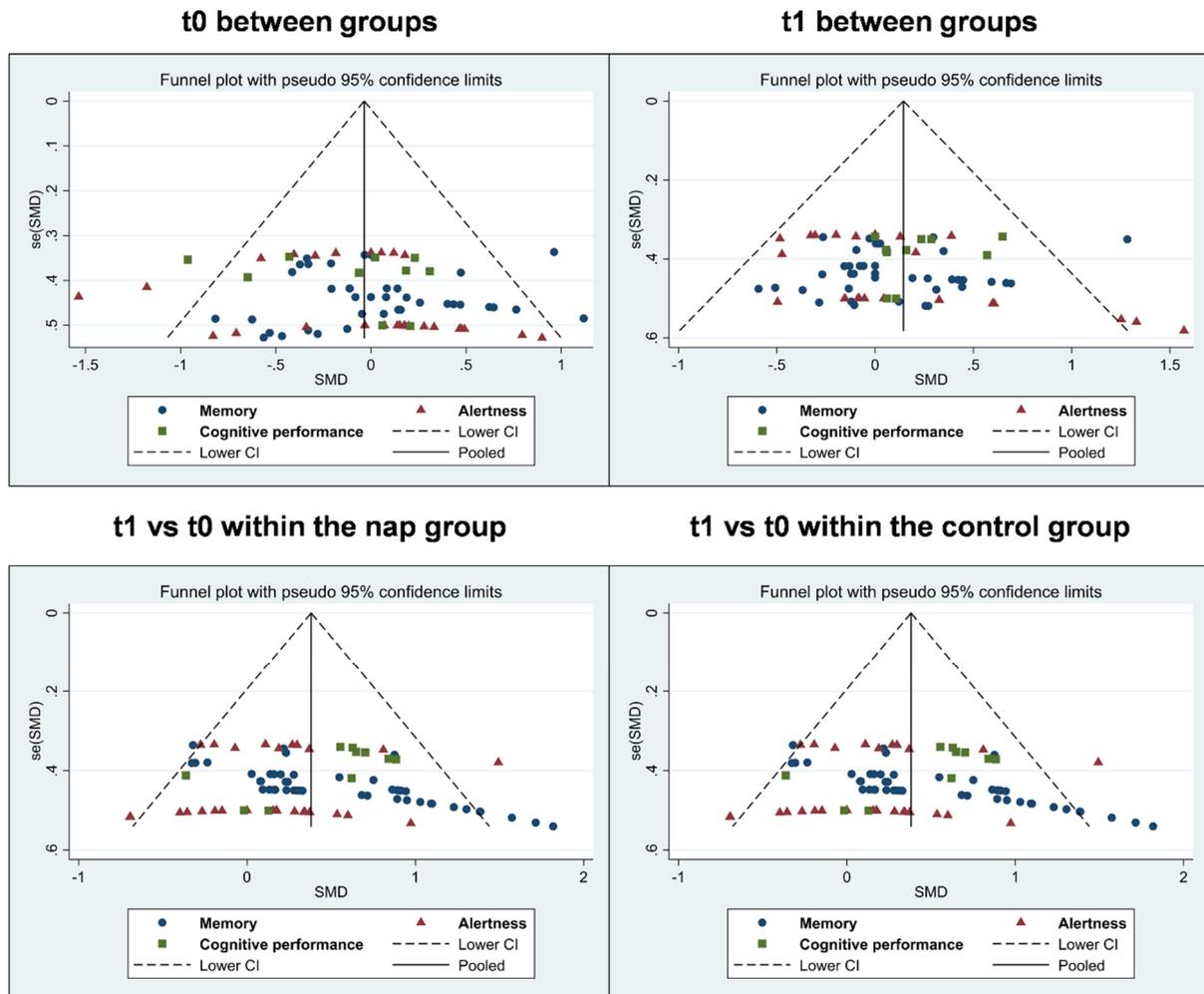
Each summary of several meta-analysis is represented in the forest-plot by a dot on a horizontal line. The black dots represent the pooled-effect estimate (pooled effect size - ES), and the length of each line around the dots represent their 95% confidence interval (95CI). Shorter lines represent a narrower 95CI thus higher precision around pooled-ES. Conversely, longer lines represent a wider 95CI and less precision around pooled-ES. An overall summary of the results of the meta-analyses pooled-estimate (result of the overall meta-analysis) is represented by a blue lozenge at the end of the graph. The black solid vertical line represents the null estimate (with a value of 0 for pooled-ES). Horizontal lines that cross the null vertical line represent the non-significant overall summary of the meta-analysis.



**Figure S2. Funnel plot - Meta-analysis on overall performance between groups at baseline (t0), at t1 and on comparison between t1 and t0 for each group (nap and control) and stratified on type cognitive function**

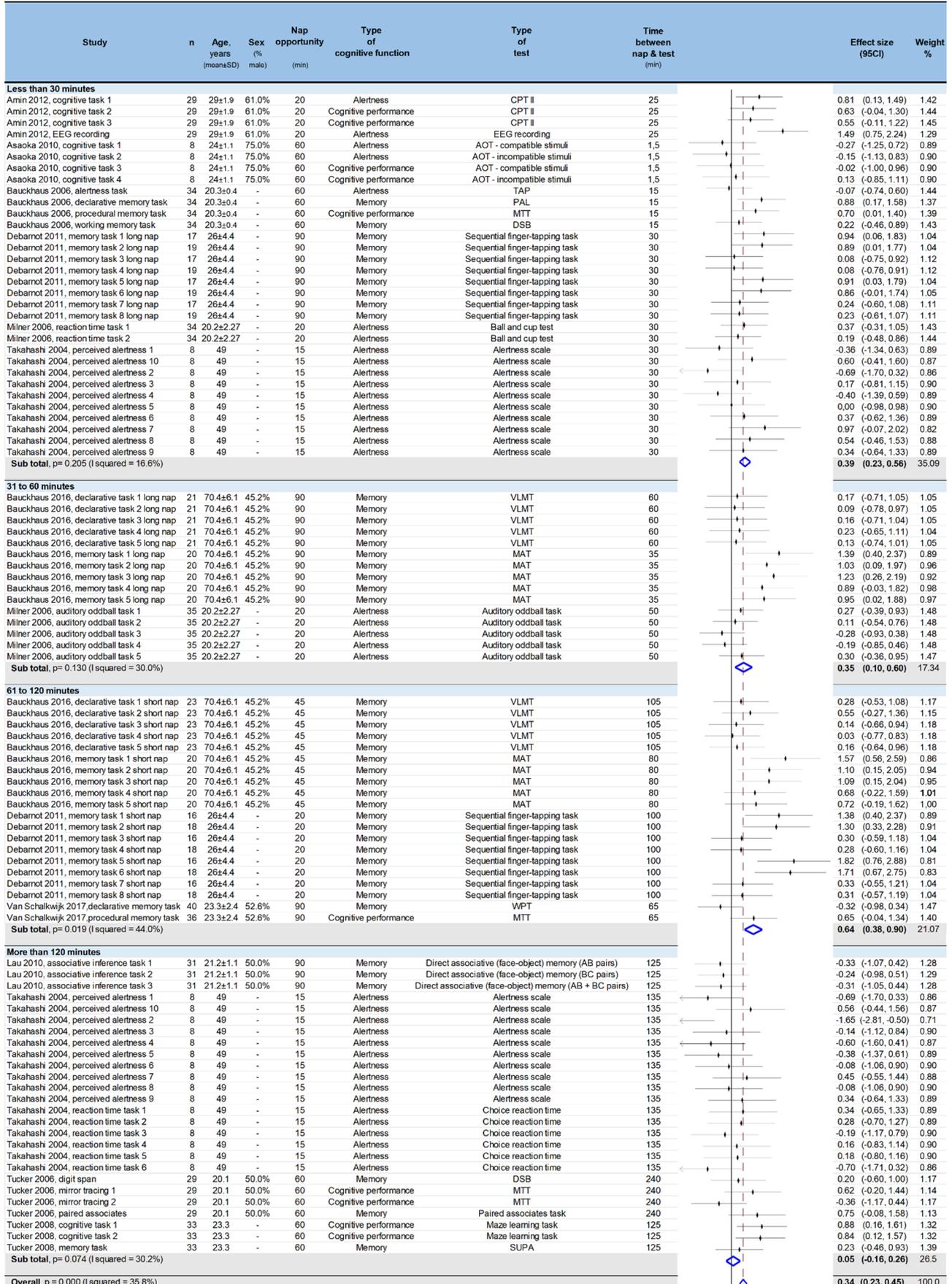
*SMD: Standardized Mean Difference; se(SMD): standard error of standardized mean difference*

*Each dot represents a single study, with its corresponding effect size (x axis) and its associated standard error of the effect estimate (y-axis). Large high-powered studies are placed towards the top, and smaller low-powered studies towards the bottom. The plot should ideally resemble a pyramid or inverted funnel, with scatter due to sampling variation. Studies outside funnel plot are likely to present bias (Sterne JA, Sutton AJ, Ioannidis JP, Terrin N, Jones DR, Lau J, Carpenter J, Rücker G, Harbord RM, Schmid CH, Tetzlaff J, Deeks JJ, Peters J, Macaskill P, Schwarzer G, Duval S, Altman DG, Moher D, Higgins JP. Recommendations for examining and interpreting funnel plot asymmetry in meta-analyses of randomised controlled trials. BMJ. 2011 Jul 22;343:d4002. doi: 10.1136/bmj.d4002).*



# Figure S3. Meta-analysis on overall effects of nap within the nap group (t1 vs t0) stratified on time of analysis

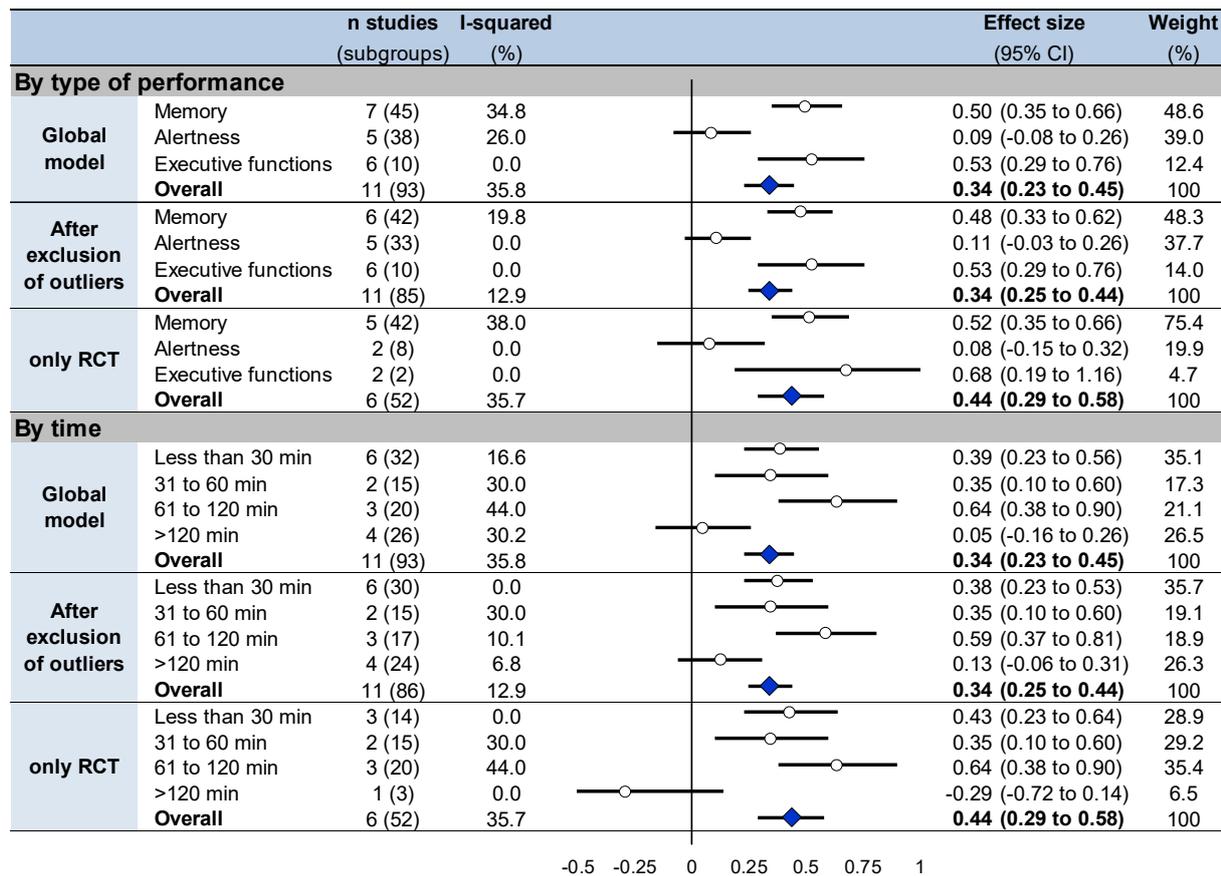
95%CI: 95% confidence intervals; AOT, Arrow orientation task; CPT II, Conner's Continuous Performance Test Version 5; DSB, Digit span backwards task; EEG, Electroencephalographic; MAT, Motor adaptation task; MTT, Mirror Tracing Task; PAL, Paired associates learning; SUPA, Semantically unrelated paired associates; TAP, Test of Attentional Performance; VLMT, Verbal learning and memory test; WPT, Word-pair task. Each individual study or subgroup used in the meta-analysis is represented in the forest-plot by a dot on a horizontal line. The black dots represent the effect estimate (effect size - ES), and the length of each line around the dots represent its 95% confidence interval (95CI). Shorter lines represent a narrower 95CI thus higher precision around study ES, usually found in larger studies. Conversely, longer lines represent a wider 95CI and less precision around ES usually found in smaller studies. An overall summary pooled-estimate (result of the meta-analysis) is represented by a blue lozenge at the end of the graph. The black solid vertical line represents the null estimate (with a value of 0 for ES) and the red dotted vertical line represents result of the meta-analysis (pooled-estimate). Horizontal lines that cross the null vertical line represent non-significant studies.



**Figure S4. Summary of meta-analyses on cognitive performance at t1 compared with baseline (t0) within the nap group, stratified on type of cognitive function and on time of analysis:**

Each summary of meta-analysis is presented in three conditions: global model with all the studies, after exclusion of outliers (studies not evenly distributed around the funnel plot) and with only randomized controlled trials

Each summary of several meta-analysis is represented in the forest-plot by a dot on a horizontal line. The black dots represent the pooled-effect estimate (pooled effect size - ES), and the length of each line around the dots represent their 95% confidence interval (95CI). Shorter lines represent a narrower 95CI thus higher precision around pooled-ES. Conversely, longer lines represent a wider 95CI and less precision around pooled-ES. An overall summary of the results of the meta-analyses pooled-estimate (result of the overall meta-analysis) is represented by a blue lozenge at the end of the graph. The black solid vertical line represents the null estimate (with a value of 0 for pooled-ES). Horizontal lines that cross the null vertical line represent the non-significant overall summary of the meta-analysis.



# Figure S5. Meta-analysis on overall effects of nap within the nap group (t1 vs t0) stratified on type of cognitive function

95%CI: 95% confidence intervals ; AOT, Arrow orientation task; CPT II, Conner's Continuous Performance Test Version 5; DSB, Digit span backwards task; EEG, Electroencephalographic; MAT, Motor adaptation task; MTT, Mirror Tracing Task; PAL, Paired associates learning; SUPA, Semantically unrelated paired associates; TAP, Test of Attentional Performance; VLMT, Verbal learning and memory test; WPT, Word-pair task.

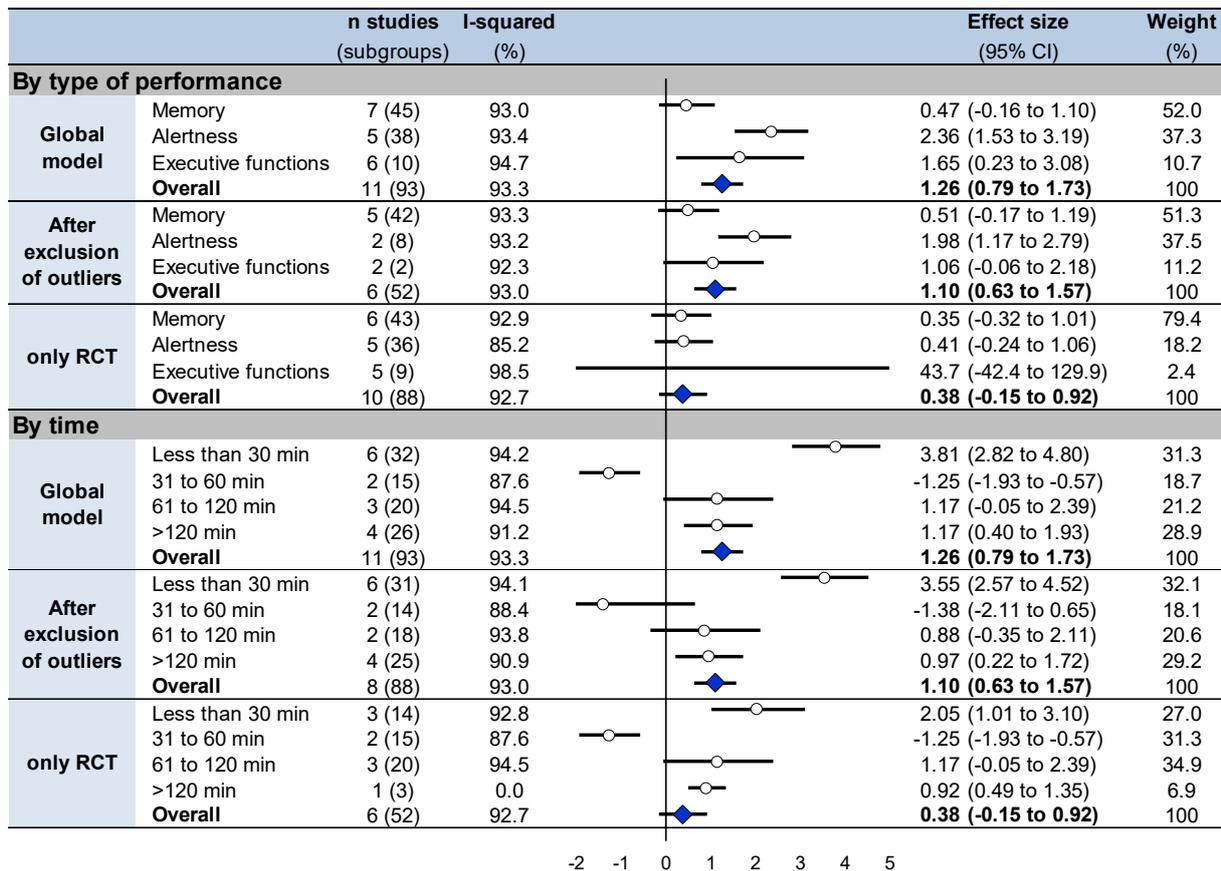
Each individual study or subgroup used in the meta-analysis is represented in the forest-plot by a dot on a horizontal line. The black dots represent the effect estimate (effect size - ES), and the length of each line around the dots represent its 95% confidence interval (95CI). Shorter lines represent a narrower 95CI thus higher precision around study ES, usually found in larger studies. Conversely, longer lines represent a wider 95CI and less precision around ES usually found in smaller studies. An overall summary pooled-estimate (result of the meta-analysis) is represented by a blue lozenge at the end of the graph. The black solid vertical line represents the null estimate (with a value of 0 for ES) and the red dotted vertical line represents result of the meta-analysis (pooled-estimate). Horizontal lines that cross the null vertical line represent non-significant studies.



## Figure S6. Summary of meta-analyses on changes in performance between t1 and t0 between groups

Each summary of meta-analysis is presented in three conditions: global model with all the studies, after exclusion of outliers (studies not evenly distributed around the funnel plot) and with only randomized controlled trials

Each summary of several meta-analysis is represented in the forest-plot by a dot on a horizontal line. The black dots represent the pooled-effect estimate (pooled effect size - ES), and the length of each line around the dots represent their 95% confidence interval (95CI). Shorter lines represent a narrower 95CI thus higher precision around pooled-ES. Conversely, longer lines represent a wider 95CI and less precision around pooled-ES. An overall summary of the results of the meta-analyses pooled-estimate (result of the overall meta-analysis) is represented by a blue lozenge at the end of the graph. The black solid vertical line represents the null estimate (with a value of 0 for pooled-ES). Horizontal lines that cross the null vertical line represent the non-significant overall summary of the meta-analysis.



-2 -1 0 1 2 3 4 5

## Figure S7. Summary of meta-analyses on cognitive performance at t1 compared with baseline (t0) within the control group, stratified on type of cognitive function and on time of analysis

Each summary of meta-analysis is presented in three conditions: global model with all the studies, after exclusion of outliers (studies not evenly distributed around the funnel plot) and with only randomized controlled trials

Each summary of several meta-analysis is represented in the forest-plot by a dot on a horizontal line. The black dots represent the pooled-effect estimate (pooled effect size - ES), and the length of each line around the dots represent their 95% confidence interval (95CI). Shorter lines represent a narrower 95CI thus higher precision around pooled-ES. Conversely, longer lines represent a wider 95CI and less precision around pooled-ES. An overall summary of the results of the meta-analyses pooled-estimate (result of the overall meta-analysis) is represented by a blue lozenge at the end of the graph. The black solid vertical line represents the null estimate (with a value of 0 for pooled-ES). Horizontal lines that cross the null vertical line represent the non-significant overall summary of the meta-analysis.

