Supplementary Materials: Effects of Media Sensationalization on Cognitive Performance and Post Concussive Symptoms

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Original Source Data for Meta-Analysis

	DT_M	DT_S	DT_N	C_M	C_S	C_N	yi	vi
Suhr & Gunstad 2002 AVLT IR	11.50	2.50	17	12.10	1.80	19	-0.27	0.11
Suhr & Gunstad 2002 AVLT DR	11.10	3.00	17	12.40	1.80	19	-0.52	0.12
Suhr & Gunstad 2002 CFT DR	21.20	5.20	17	23.60	3.40	19	-0.54	0.12
Suhr & Gunstad 2002 Information	10.40	1.80	17	11.80	2.10	19	-0.70	0.12
Suhr & Gunstad 2002 Block Design	11.20	2.70	17	13.70	3.20	19	-0.82	0.12
Suhr & Gunstad 2002 Digit Span	11.10	2.60	17	11.50	2.90	19	-0.14	0.11
Suhr & Gunstad 2002 LNS	11.30	2.50	17	11.80	2.80	19	-0.18	0.11
Suhr & Gunstad 2002 TMT-A	23.70	7.90	17	21.90	7.00	19	-0.24	0.11
Suhr & Gunstad 2002 TMT-B	53.10	15.80	17	48.30	15.30	19	-0.30	0.11
Suhr & Gunstad 2002 COWAT	39.50	6.90	17	39.30	8.90	19	0.02	0.11
Suhr & Gunstad 2005 CFT DR	18.80	7.10	28	23.20	4.50	25	-0.72	0.08
Suhr & Gunstad 2005 WMT PA	95.70	6.20	28	98.20	3.50	25	-0.48	0.08
Suhr & Gunstad 2005 WMT FR	68.40	12.30	28	70.10	13.50	25	-0.13	0.08
Suhr & Gunstad 2005 WMT DR	72.40	11.90	28	74.70	14.00	25	-0.18	0.08
Suhr & Gunstad 2005 TMT-A	24.90	9.10	28	22.80	6.60	25	-0.26	0.08
Suhr & Gunstad 2005 Coding	11.60	1.70	28	12.80	2.10	25	-0.62	0.08
Suhr & Gunstad 2005 Digit Span	9.80	2.10	28	11.40	2.20	25	-0.73	0.08
Suhr & Gunstad 2005 LNS	10.30	2.10	28	12.20	2.10	25	-0.89	0.08
Suhr & Gunstad 2005 Arithmetic	10.20	2.20	28	11.60	2.10	25	-0.64	0.08
Suhr & Gunstad 2005 TMT-B	47.50	9.90	28	44.20	12.00	25	-0.30	0.08
Suhr & Gunstad 2005 WCST Categories	5.80	0.60	28	6.00	0.00	25	-0.45	0.08
Suhr & Gunstad 2005 WCST FMS	0.50	0.80	28	0.40	0.70	25	-0.13	0.08
Suhr & Gunstad 2005 WCST PPE	20.00	8.80	28	17.70	6.40	25	-0.29	0.08
Kinkela 2008 AVLT Total	52.00	5.61	15	50.65	8.40	17	0.18	0.13
Kinkela 2008 AVLT DR	10.93	3.01	15	9.47	4.11	17	0.39	0.13
Kinkela 2008 CFT DR	22.20	4.64	15	22.38	5.16	17	-0.04	0.13
Kinkela 2008 Digit Span	11.60	1.88	15	12.00	2.76	17	-0.16	0.13
Kinkela 2008 Arithmetic	10.93	1.62	15	10.65	3.10	17	0.11	0.13
Kinkela 2008 LNS	12.20	3.03	15	11.29	2.20	17	0.34	0.13
Kinkela 2008 Matrix Reasoning	12.40	2.67	15	12.24	2.61	17	0.06	0.13
Kinkela 2008 Block Design	11.27	2.25	15	11.76	3.86	17	-0.15	0.13

(continued)

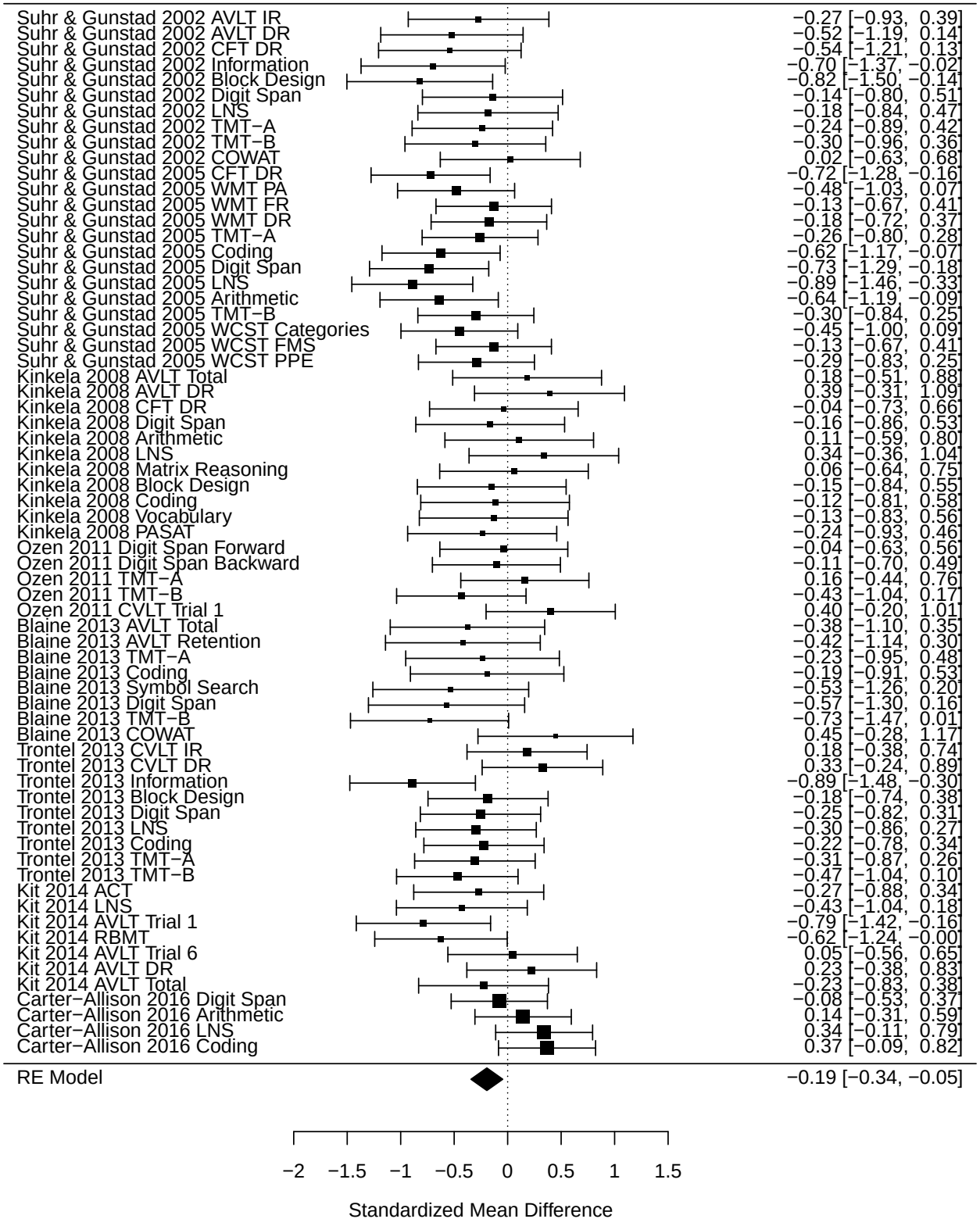
	DT_M	DT_S	DT_N	C_M	C_S	C_N	yi	vi
Kinkela 2008 Coding	10.47	1.92	15	10.71	2.05	17	-0.12	0.13
Kinkela 2008 Vocabulary	12.07	2.19	15	12.35	2.00	17	-0.13	0.13
Kinkela 2008 PASAT	39.53	5.41	15	41.94	12.53	17	-0.24	0.13
Ozen 2011 Digit Span Forward	8.41	2.22	22	8.48	1.54	21	-0.04	0.09
Ozen 2011 Digit Span Backward	7.10	2.11	22	7.33	2.18	21	-0.11	0.09
Ozen 2011 TMT-A	18.12	4.20	22	18.84	4.60	21	0.16	0.09
Ozen 2011 TMT-B	41.94	16.57	22	35.96	9.39	21	-0.43	0.10
Ozen 2011 CVLT Trial 1	8.09	2.35	22	7.29	1.42	21	0.40	0.09
Blaine 2013 AVLT Total	50.13	9.26	15	54.13	11.35	15	-0.38	0.14
Blaine 2013 AVLT Retention	20.27	5.66	15	22.80	6.09	15	-0.42	0.14
Blaine 2013 TMT-A	18.04	5.28	15	16.15	9.74	15	-0.23	0.13
Blaine 2013 Coding	20.07	14.43	15	22.70	12.14	15	-0.19	0.13
Blaine 2013 Symbol Search	39.47	11.27	15	45.53	10.90	15	-0.53	0.14
Blaine 2013 Digit Span	18.60	4.08	15	21.07	4.33	15	-0.57	0.14
Blaine 2013 TMT-B	39.81	18.15	15	29.43	7.29	15	-0.73	0.14
Blaine 2013 COWAT	43.80	7.12	15	39.47	11.27	15	0.45	0.14
Trontel 2013 CVLT IR	57.84	9.50	25	56.17	8.58	24	0.18	0.08
Trontel 2013 CVLT DR	12.72	2.34	25	11.92	2.50	24	0.33	0.08
Trontel 2013 Information	15.52	5.30	25	19.37	2.80	24	-0.89	0.09
Trontel 2013 Block Design	48.24	10.15	25	50.13	10.13	24	-0.18	0.08
Trontel 2013 Digit Span	17.08	4.06	25	18.13	4.07	24	-0.25	0.08
Trontel 2013 LNS	11.44	2.80	25	12.17	1.97	24	-0.30	0.08
Trontel 2013 Coding	78.76	9.23	25	81.12	11.66	24	-0.22	0.08
Trontel 2013 TMT-A	27.41	10.57	25	24.10	10.70	24	-0.31	0.08
Trontel 2013 TMT-B	58.71	16.72	25	50.36	18.18	24	-0.47	0.08
Kit 2014 ACT	25.05	7.95	21	27.00	6.07	21	-0.27	0.10
Kit 2014 LNS	10.50	2.31	21	11.48	2.18	21	-0.43	0.10
Kit 2014 AVLT Trial 1	6.48	0.94	21	7.76	2.05	21	-0.79	0.10
Kit 2014 RBMT	6.69	2.45	21	8.62	3.53	21	-0.62	0.10
Kit 2014 AVLT Trial 6	10.62	3.15	21	10.48	2.79	21	0.05	0.10
Kit 2014 AVLT DR	11.05	3.34	21	10.33	2.92	21	0.23	0.10
Kit 2014 AVLT Total	50.90	10.00	21	53.05	8.67	21	-0.23	0.10
Carter-Allison 2016 Digit Span	11.59	3.18	39	11.81	2.30	37	-0.08	0.05
Carter-Allison 2016 Arithmetic	12.26	2.79	39	11.84	2.97	37	0.14	0.05
Carter-Allison 2016 LNS	12.77	3.91	39	11.51	3.37	37	0.34	0.05
Carter-Allison 2016 Coding	11.92	3.01	39	10.86	2.67	37	0.37	0.05

Meta-Analysis via Multivariate/Multilevel Linear (Mixed-Effects) Models using metafor

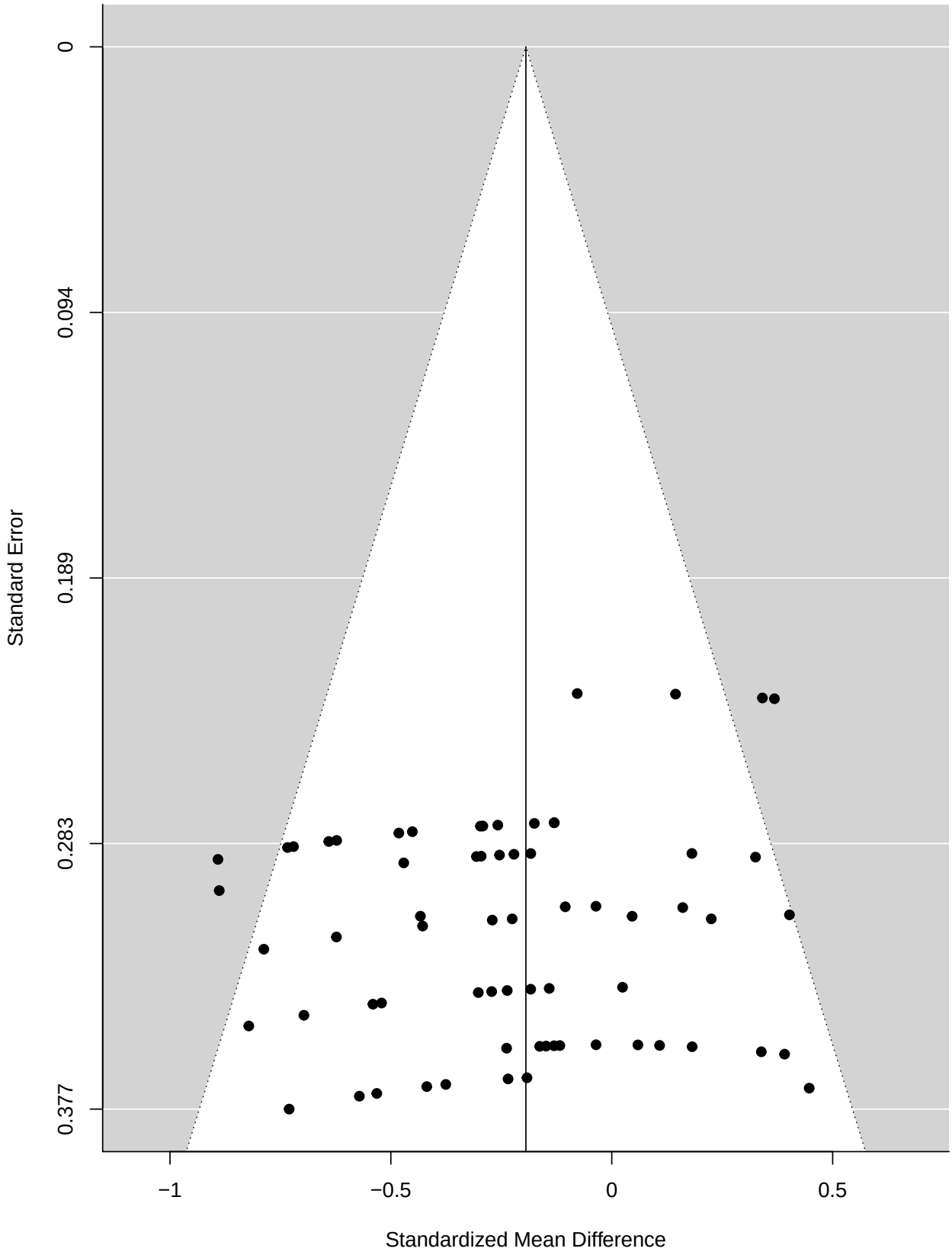
```
dtMeta <- rma.mv(yi = yi, V = vi, random = ~1 | LabNumber/StudyNumber/TestNumber/VariableNumber,
    method = "REML", slab = paste(Study, DV), level = 95, data = dtDatES)
summary(dtMeta)
```

```
##
## Multivariate Meta-Analysis Model (k = 67; method: REML)
##
##   logLik  Deviance       AIC       BIC      AICc
## -17.0602   34.1204   44.1204   55.0687   45.1204
##
## Variance Components:
##
##             estim    sqrt  nlvls  fixed
## sigma^2.1  0.0000  0.0000      6     no
## sigma^2.2  0.0262  0.1618      8     no
## sigma^2.3  0.0196  0.1400     29     no
## sigma^2.4  0.0000  0.0000     66     no
##                                                    factor
## sigma^2.1                                       LabNumber
## sigma^2.2                                LabNumber/StudyNumber
## sigma^2.3                      LabNumber/StudyNumber/TestNumber
## sigma^2.4  LabNumber/StudyNumber/TestNumber/VariableNumber
##
## Test for Heterogeneity:
## Q(df = 66) = 82.4597, p-val = 0.0830
##
## Model Results:
##
## estimate      se     zval    pval    ci.lb    ci.ub
##  -0.1944  0.0757  -2.5683  0.0102  -0.3428  -0.0460  *
##
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Forest Plot


Suhr & Gunstad 2002 AVLT IR −0.27 [−0.93, 0.39]
Suhr & Gunstad 2002 AVLT DR −0.52 [−1.19, 0.14]
Suhr & Gunstad 2002 CFT DR −0.54 [−1.21, 0.13]
Suhr & Gunstad 2002 Information −0.70 [−1.37, −0.02]
Suhr & Gunstad 2002 Block Design −0.82 [−1.50, −0.14]
Suhr & Gunstad 2002 Digit Span −0.14 [−0.80, 0.51]
Suhr & Gunstad 2002 LNS −0.18 [−0.84, 0.47]
Suhr & Gunstad 2002 TMT−A −0.24 [−0.89, 0.42]
Suhr & Gunstad 2002 TMT−B −0.30 [−0.96, 0.36]
Suhr & Gunstad 2002 COWAT 0.02 [−0.63, 0.68]
Suhr & Gunstad 2005 CFT DR −0.72 [−1.28, −0.16]
Suhr & Gunstad 2005 WMT PA −0.48 [−1.03, 0.07]
Suhr & Gunstad 2005 WMT FR −0.13 [−0.67, 0.41]
Suhr & Gunstad 2005 WMT DR −0.18 [−0.72, 0.37]
Suhr & Gunstad 2005 TMT−A −0.26 [−0.80, 0.28]
Suhr & Gunstad 2005 Coding −0.62 [−1.17, −0.07]
Suhr & Gunstad 2005 Digit Span −0.73 [−1.29, −0.18]
Suhr & Gunstad 2005 LNS −0.89 [−1.46, −0.33]
Suhr & Gunstad 2005 Arithmetic −0.64 [−1.19, −0.09]
Suhr & Gunstad 2005 TMT−B −0.30 [−0.84, 0.25]
Suhr & Gunstad 2005 WCST Categories −0.45 [−1.00, 0.09]
Suhr & Gunstad 2005 WCST FMS −0.13 [−0.67, 0.41]
Suhr & Gunstad 2005 WCST PPE −0.29 [−0.83, 0.25]
Kinkela 2008 AVLT Total 0.18 [−0.51, 0.88]
Kinkela 2008 AVLT DR 0.39 [−0.31, 1.09]
Kinkela 2008 CFT DR −0.04 [−0.73, 0.66]
Kinkela 2008 Digit Span −0.16 [−0.86, 0.53]
Kinkela 2008 Arithmetic 0.11 [−0.59, 0.80]
Kinkela 2008 LNS 0.34 [−0.36, 1.04]
Kinkela 2008 Matrix Reasoning 0.06 [−0.64, 0.75]
Kinkela 2008 Block Design −0.15 [−0.84, 0.55]
Kinkela 2008 Coding −0.12 [−0.81, 0.58]
Kinkela 2008 Vocabulary −0.13 [−0.83, 0.56]
Kinkela 2008 PASAT −0.24 [−0.93, 0.46]
Ozen 2011 Digit Span Forward −0.04 [−0.63, 0.56]
Ozen 2011 Digit Span Backward −0.11 [−0.70, 0.49]
Ozen 2011 TMT−A 0.16 [−0.44, 0.76]
Ozen 2011 TMT−B −0.43 [−1.04, 0.17]
Ozen 2011 CVLT Trial 1 0.40 [−0.20, 1.01]
Blaine 2013 AVLT Total −0.38 [−1.10, 0.35]
Blaine 2013 AVLT Retention −0.42 [−1.14, 0.30]
Blaine 2013 TMT−A −0.23 [−0.95, 0.48]
Blaine 2013 Coding −0.19 [−0.91, 0.53]
Blaine 2013 Symbol Search −0.53 [−1.26, 0.20]
Blaine 2013 Digit Span −0.57 [−1.30, 0.16]
Blaine 2013 TMT−B −0.73 [−1.47, 0.01]
Blaine 2013 COWAT 0.45 [−0.28, 1.17]
Trontel 2013 CVLT IR 0.18 [−0.38, 0.74]
Trontel 2013 CVLT DR 0.33 [−0.24, 0.89]
Trontel 2013 Information −0.89 [−1.48, −0.30]
Trontel 2013 Block Design −0.18 [−0.74, 0.38]
Trontel 2013 Digit Span −0.25 [−0.82, 0.31]
Trontel 2013 LNS −0.30 [−0.86, 0.27]
Trontel 2013 Coding −0.22 [−0.78, 0.34]
Trontel 2013 TMT−A −0.31 [−0.87, 0.26]
Trontel 2013 TMT−B −0.47 [−1.04, 0.10]
Kit 2014 ACT −0.27 [−0.88, 0.34]
Kit 2014 LNS −0.43 [−1.04, 0.18]
Kit 2014 AVLT Trial 1 −0.79 [−1.42, −0.16]
Kit 2014 RBMT −0.62 [−1.24, −0.00]
Kit 2014 AVLT Trial 6 0.05 [−0.56, 0.65]
Kit 2014 AVLT DR 0.23 [−0.38, 0.83]
Kit 2014 AVLT Total −0.23 [−0.83, 0.38]
Carter−Allison 2016 Digit Span −0.08 [−0.53, 0.37]
Carter−Allison 2016 Arithmetic 0.14 [−0.31, 0.59]
Carter−Allison 2016 LNS 0.34 [−0.11, 0.79]
Carter−Allison 2016 Coding 0.37 [−0.09, 0.82]
RE Model −0.19 [−0.34, −0.05]
−2 −1.5 −1 −0.5 0 0.5 1 1.5
Standardized Mean Difference

Funnel Plot


0
0.094
0.189
0.283
0.377
Standard Error
−1
−0.5
0
0.5
Standardized Mean Difference