Supplementary Online Content

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This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. List of Keywords Used in Database Searches

Population	Exposure	Outcome
child	prematur*	follow up
children	preterm birth	neurodevelopment*
adolescent	“very preterm”	intelligence
“pre-school”	“extremely preterm”	academic
“primary school”	birth weight	“school performance”
“elementary school”	“low birth weight”	delay*
Elementary	“very low birth weight”	deficit*
pre-school*	“extremely low birth weight”	impairment
kindergarten*	“late preterm”	development*
“grade school”	“early term”	reading
school-age*		math*
“secondary school”		spelling
		arithmetic
		numeracy
		literacy
		learning dis*
		developmental dis*
		education*
		decoding
		comprehension
		phonological
		language
		learning
		achievement

eTable 2. List of Assessment Measures from Included Studies

Study	Assessment Tool (cluster or subtest)
Anderson et al, 2003	Wide Range Achievement Test, 3rd Edition (reading[a]; arithmetic[b])
Andreias et al, 2010	Woodcock-Johnson Tests of Achievement (letter-word identification[a]; calculation[c])
Assel et al, 2003	Woodcock-Johnson Tests of Achievement-R (calculation[c])
Botting et al, 1998	Wechsler Objective Reading Dimensions (reading[a])
Bowen et al, 2002	Woodcock Reading Mastery Tests-Revised (total reading[d]; basic reading skills[e]; reading comprehension[f]) TEMA-2 (maths quotient[b])
Brumbaugh et al, 2016	Wide Range Achievement Test, 4th Edition (reading[d]; arithmetic[b])
Chaudhari et al, 2004	Woodcock Reading Mastery Tests-Revised (arithmetic[b])
Cheong et al, 2017	Wide Range Achievement Test, 3rd Edition (reading[a]; arithmetic[b])
Downie et al, 2007	Woodcock Reading Mastery Tests-Revised (word identification[a]; word attack[g])
Doyle et al, 2000	Wide Range Achievement Test, 4th Edition (word reading[a]; mathematical computation[b])
Frye et al, 2009	Woodcock-Johnson Test of Achievement (word attack[g])
Gross et al, 2001	Wechsler Individual Achievement Test (reading[d]; maths composite[h])
Grunau et al., 2002	Wide Range Achievement Test-Revised (word reading[a]; arithmetic[b])
Grunau et al, 2004	Wide Range Achievement Test, 3rd Edition (reading[a]; arithmetic[b])
Hutchinson et al, 2013	Wide Range Achievement Test, 3rd Edition (reading[a]; arithmetic[b])

Study	Assessment Tool (cluster or subtest)
Johnson et al, 2011	Wechsler Individual Achievement Test II (reading composite[d]; word reading[a]; pseudoword decoding[g]; reading comprehension[f]; maths composite[h]; numerical operations[c]; mathematical reasoning[i])
Lee et al, 2011	Woodcock-Johnson III (basic reading skills[e]; passage comprehension[f])
Litt et al, 2012	Woodcock-Johnson III Tests of Achievement (letter-word identification[a]; calculation[c])
Loe et al, 2012	Woodcock-Johnson III Tests of Achievement (broad reading[d])
McGrath et al, 2002	Wide Range Achievement Test, 3rd Edition (reading[a]; arithmetic[b])
Northam et al, 2012	Wechsler Objective Reading Dimensions (reading[a])
Pritchard et al, 2009	Woodcock-Johnson III Tests of Achievement (passage comprehension[f])
Rickards et al, 2001	Wide Range Achievement Test, 3rd Edition (reading[a]; arithmetic[b])
Rose et al, 2011	Woodcock-Johnson III Tests of Achievement (letter-word identification[a], math fluency[j]; applied problems[i])
Sayeur et al, 2015	Wechsler Individual Achievement Test-II (word reading[a])
Short et al, 2003	Woodcock-Johnson Tests of Achievement-Revised (letter-word identification[a]; passage comprehension[f]; calculation[c]; applied problems[i])
Simms et al, 2015	Wechsler Individual Achievement Test-II (maths composite[h])
Tandon et al, 2000	Wide Range Achievement Test-Revised (reading[a]; arithmetic[b])
Taylor et al, 1995	Woodcock-Johnson Tests of Achievement-Revised (word identification[a]; calculation[c]; applied problems[i])
Taylor et al, 2008	Woodcock-Johnson Revised Tests of Cognitive Ability (word identification[a]; passage comprehension[f])

Study	Assessment Tool (cluster or subtest)
Taylor et al, 2011	Woodcock-Johnson Tests of Achievement (letter-word identification[a]; calculation[c]; applied problems[i])
Taylor et al, 2016	Wide Range Achievement Test, 4th Edition (reading[a]; mathematical computation[b])
Woodward et al, 2017	Woodcock-Johnson III Tests of Achievement (math fluency[j])

Note. Clusters and subtests with similar content and thought to test similar academic constructs were compiled to form the following for the purpose of meta-analysis: [a]Word Identification; [b]Mathematical Knowledge; [c]Calculation; [d]Aggregate Measures of Reading; [e]Decoding; [f]Reading Comprehension; [g]Phonological Decoding; [h]Aggregate Measures of Mathematics; [i]Applied Problems; [j]Mathematical Fluency.

eTable 3. Jackknife Sensitivity Analysis for Academic Subskills Comparisons

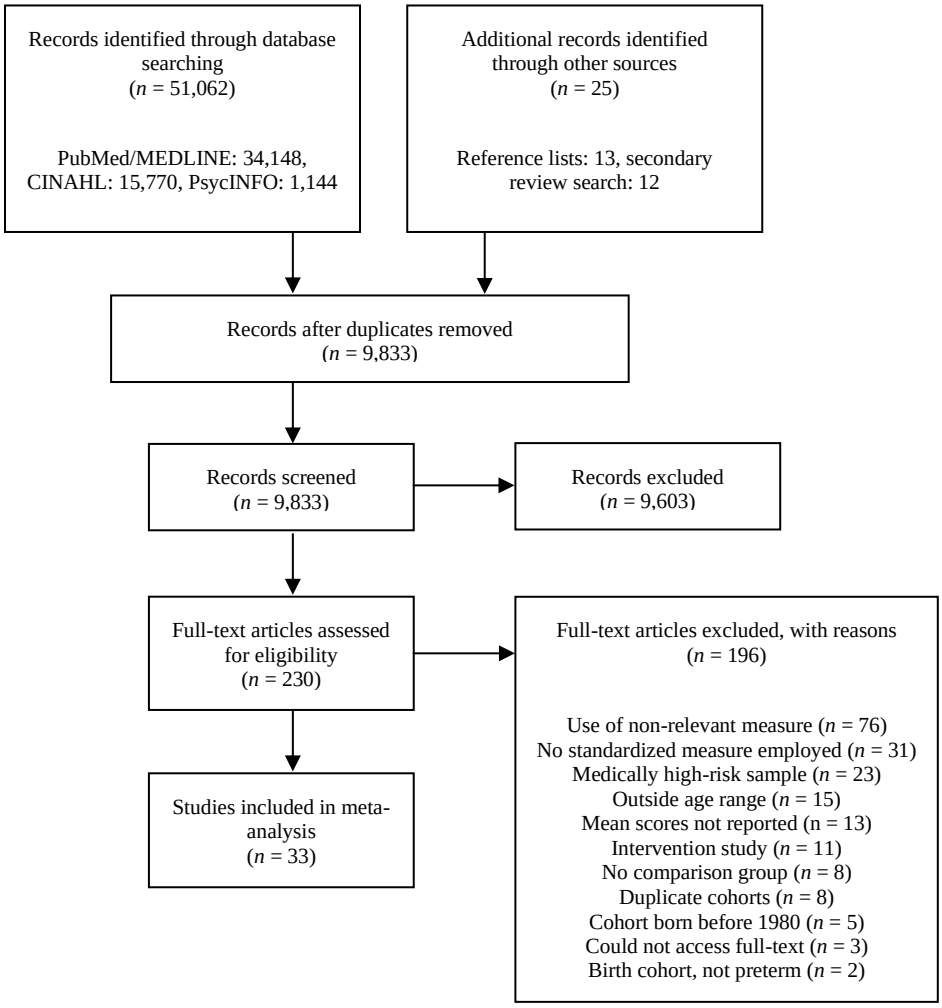
	Study removed	I^2	Subtotal mean difference	95% CI	p
Aggregate measures of reading	None	92%	-7.98	-13.05 to -2.91	.002
	Loe et al, 2012	94%	-8.37	-14.35 to -2.39	.006
	Botting et al, 1998	93%	-8.51	-15.26 to -1.76	.01
	Bowen et al, 2002	93%	-7.11	-12.72 to -1.50	.01
	Brumbaugh et al, 2016	93%	-9.06	-14.70 to -3.41	.002
	Gross et al, 2001	92%	-8.99	-15.04 to -2.94	.004
	Johnson et al, 2011	63%	-5.52	-8.22 to -2.81	<.001
Word identification	None	69%	-7.44	-9.08 to -5.80	<.001
	Taylor et al, 2016	70%	-7.33	-9.04 to -5.63	<.001
	Short et al, 2003	70%	-7.56	-9.24 to -5.87	<.001
	Sayeur et al, 2015	70%	-7.50	-9.15 to -5.85	<.001
	Northam et al, 2012	70%	-7.38	-9.07 to -5.68	<.001
	McGrath et al, 2002	70%	-7.46	-9.15 to -5.77	<.001
	Litt et al, 2012	70%	-7.46	-9.18 to -5.74	<.001
	Hutchinson et al, 2013	70%	-7.43	-9.18 to -.5.68	<.001
	Grunau et al, 2004	70%	-7.45	-9.17 to -5.74	<.001
	Doyle et al, 2000	70%	-7.51	-9.26 to -5.77	<.001
	Downie et al, 2007	70%	-7.37	-9.08 to -5.67	<.001
	Andreias et al, 2010	70%	-7.52	-9.25 to -5.78	<.001
	Anderson et al, 2003	70%	-7.48	-9.24 to -5.72	<.001
	Tandon et al, 2000	69%	-7.07	-8.73 to -5.41	<.001
	Rose et al, 2011	69%	-7.66	-9.32 to -5.99	<.001
	Rickards et al, 2001	69%	-7.61	-9.29 to -5.94	<.001
	Grunau et al, 2002	69%	-7.26	-8.92 to -5.59	<.001
	Taylor et al, 2008	68%	-7.69	-9.33 to -6.05	<.001
	Taylor et al, 1995	68%	-7.65	-9.32 to -5.99	<.001
	Taylor et al, 2011	67%	-7.71	-9.34 to -6.08	<.001
	Johnson et al, 2011	63%	-7.09	-8.66 to -5.53	<.001
	Cheong et al, 2017	60%	-6.92	-8.48 to -5.36	<.001
	None	99%	-5.37	-27.41 to -16.67	.63

	Study removed	I^2	Subtotal mean difference	95% CI	p
Pseudoword decoding	Downie et al, 2007	99%	-4.86	-34.73 to 25.01	.75
	Frye et al, 2009	98%	-19.02	-42.73 to 4.70	.12
	Johnson et al, 2011	90%	3.27	-6.91 to 13.45	.53
Reading Comprehension	None	81%	-7.96	-12.15 to -3.76	<.001
	Bowen et al, 2002	84%	-7.48	-12.43 to -2.52	.003
	Lee et al, 2011	84%	-7.66	-12.66 to -2.66	.003
	Short et al, 2003	83%	-8.44	-13.62 to -3.63	<.001
	Pritchard et al, 2009	80%	-8.76	-13.36, -4.16	<.001
	Taylor et al, 2008	79%	-8.91	-13.34 to -4.49	<.001
	Johnson et al, 2011	37%	-6.23	-9.01 to -3.45	<.001
Aggregate measures of mathematics	None	97%	-12.90	-23.38 to -2.43	.02
	Simms et al, 2015	98%	-13.11	-26.33 to 0.12	.05
	Botting et al, 1998	97%	-14.87	-29.70 to -0.04	.05
	Gross et al, 2001	97%	-15.57	-29.15 to -2.00	.02
	Johnson et al, 2011	56%	-7.43	-10.81 to -4.05	<.001
Mathematical knowledge	None	62%	-9.88	-11.68 to -8.08	<.001
	Tandon et al, 2000	65%	-9.52	-11.41 to -7.63	<.001
	Anderson et al, 2003	64%	-10.01	-12.02 to -7.99	<.001
	Bowen et al, 2002	62%	-9.61	-11.46 to -7.77	<.001
	Cheong et al, 2017	54%	-9.38	-11.17 to -7.59	<.001
	Doyle et al, 2000	65%	-9.94	-11.93 to -7.95	<.001
	Grunau et al, 2002	65%	-9.91	-11.83 to -7.99	<.001
	Grunau et al, 2004	62%	-9.63	-11.45 to -7.81	<.001
	Hutchinson et al, 2013	65%	-9.96	-11.93 to -7.99	<.001
	McGrath et al, 2002	65%	-9.87	-11.77 to -7.98	<.001
	Rickards et al, 2001	64%	-10.08	-11.96 to -8.2	<.001
	Taylor et al, 2016	65%	-9.81	-11.74 to -7.89	<.001
	Chaudhari et al, 2004	59%	-10.24	-12.04 to -8.44	<.001
	Brumbaugh et al, 2016	49%	-10.36	-11.93 to -8.78	<.001
Calculation	None	92%	-10.57	-15.62 to -5.52	<.001
	Andreias et al, 2010	93%	-10.85	-17.1 to -4.59	<.001

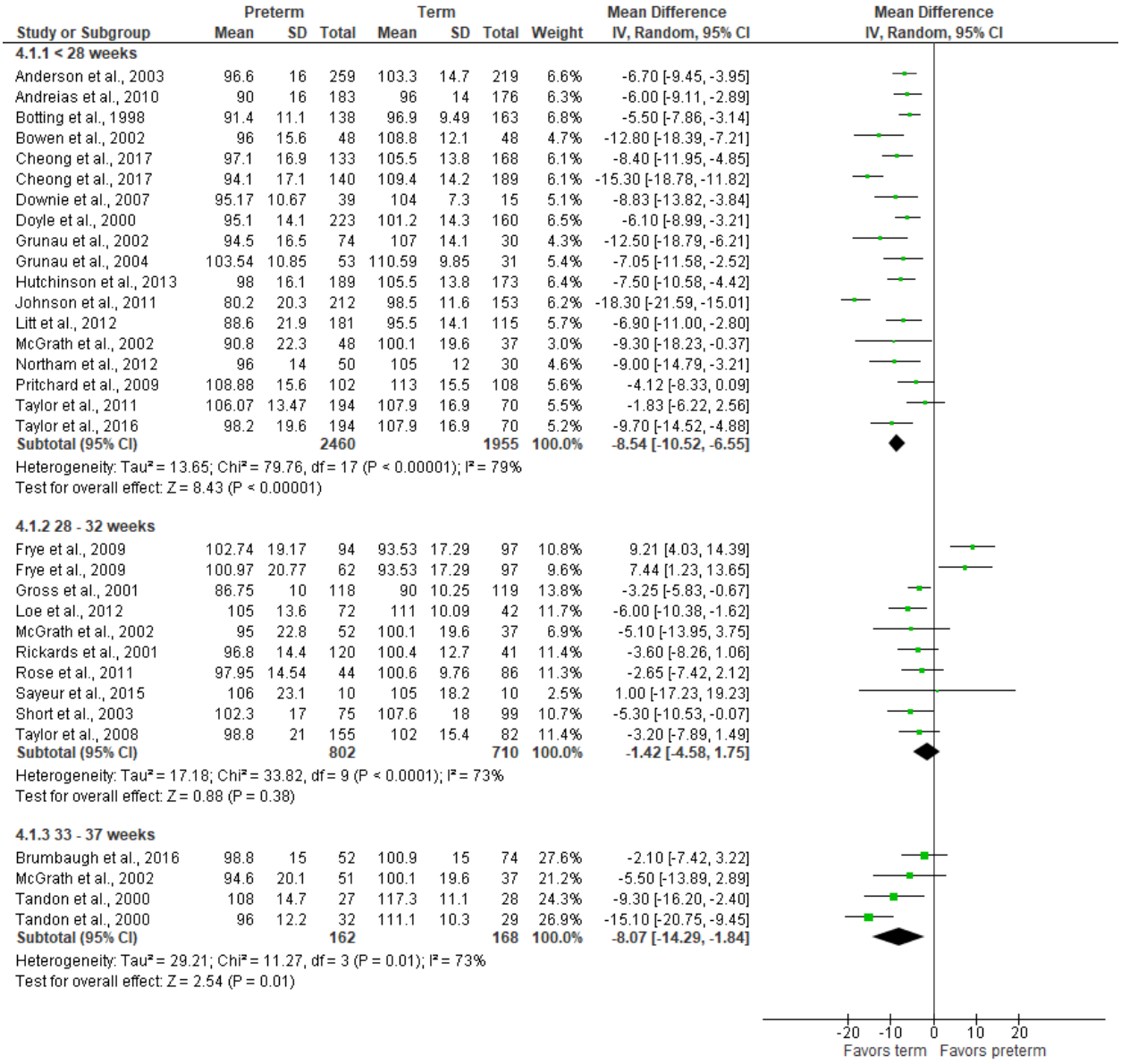
	Study removed	I^2	Subtotal mean difference	95% CI	p
	Assel et al, 2003	93%	-11.10	-16.84 to -5.36	<.001
	Litt et al, 2012	93%	-10.35	-16.2 to -4.51	<.001
	Short et al, 2003	93%	-10.29	-15.96 to -4.62	<.001
	Taylor et al, 1995	93%	-10.99	-16.85 to -5.13	<.001
	Taylor et al, 2011	89%	-11.89	-16.87 to -6.92	<.001
	Johnson et al, 2011	68%	-8.34	-11.22 to -5.45	<.001
Applied problems	None	91%	-11.41	-17.57 to -5.26	<.001
	Taylor et al, 1995	93%	-11.90	-19.44 to -4.36	.002
	Taylor et al, 2011	93%	-11.48	-19.33 to -3.63	.004
	Short et al, 2003	92%	-12.13	-19.44 to -4.81	.001
	Rose et al, 2011	91%	-12.71	-19.49 to -5.92	<.001
	Johnson et al, 2011	0%	-8.82	-11.07 to -6.57	<.001

Note. No sensitivity analyses are provided for the subgroups of Decoding and Mathematical Fluency as these comparisons included data from two studies only.

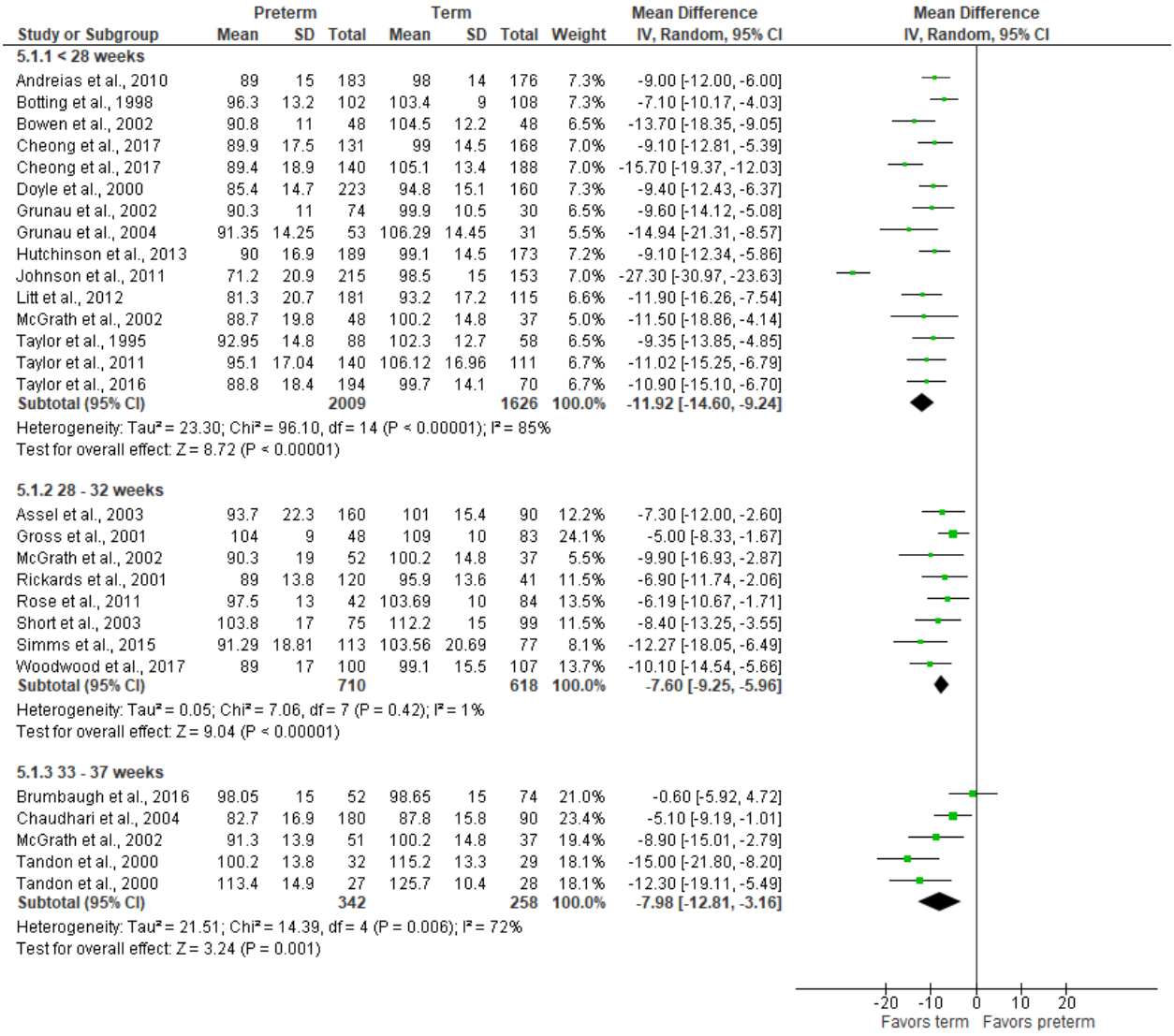
eFigure 1. PRISMA Flowchart of Study Selection Process



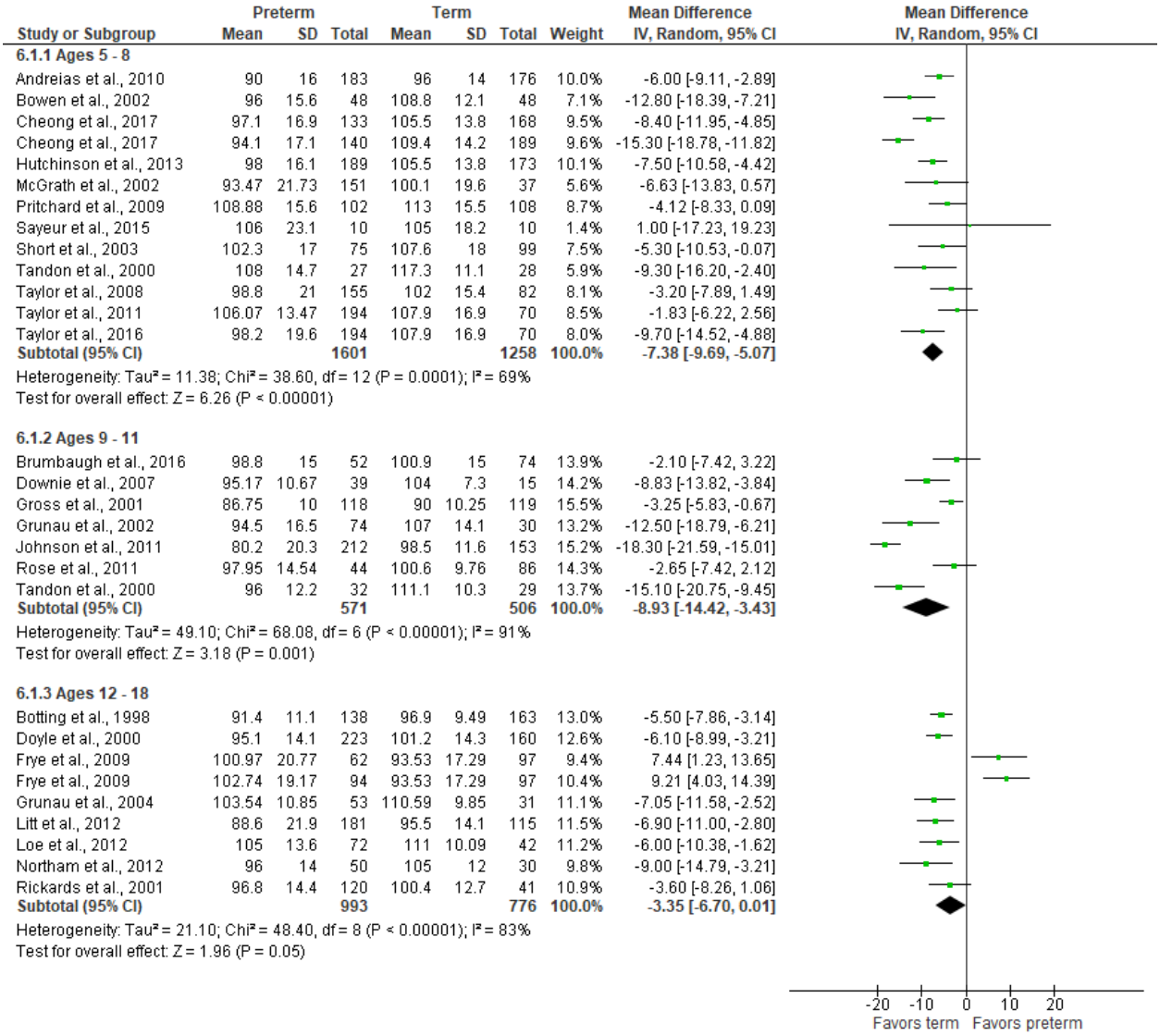
eFigure 2. Inverse-Variance Random-Effects Forest Plot of Gestational Age and Reading Outcomes for Preterm and Term-Born Children



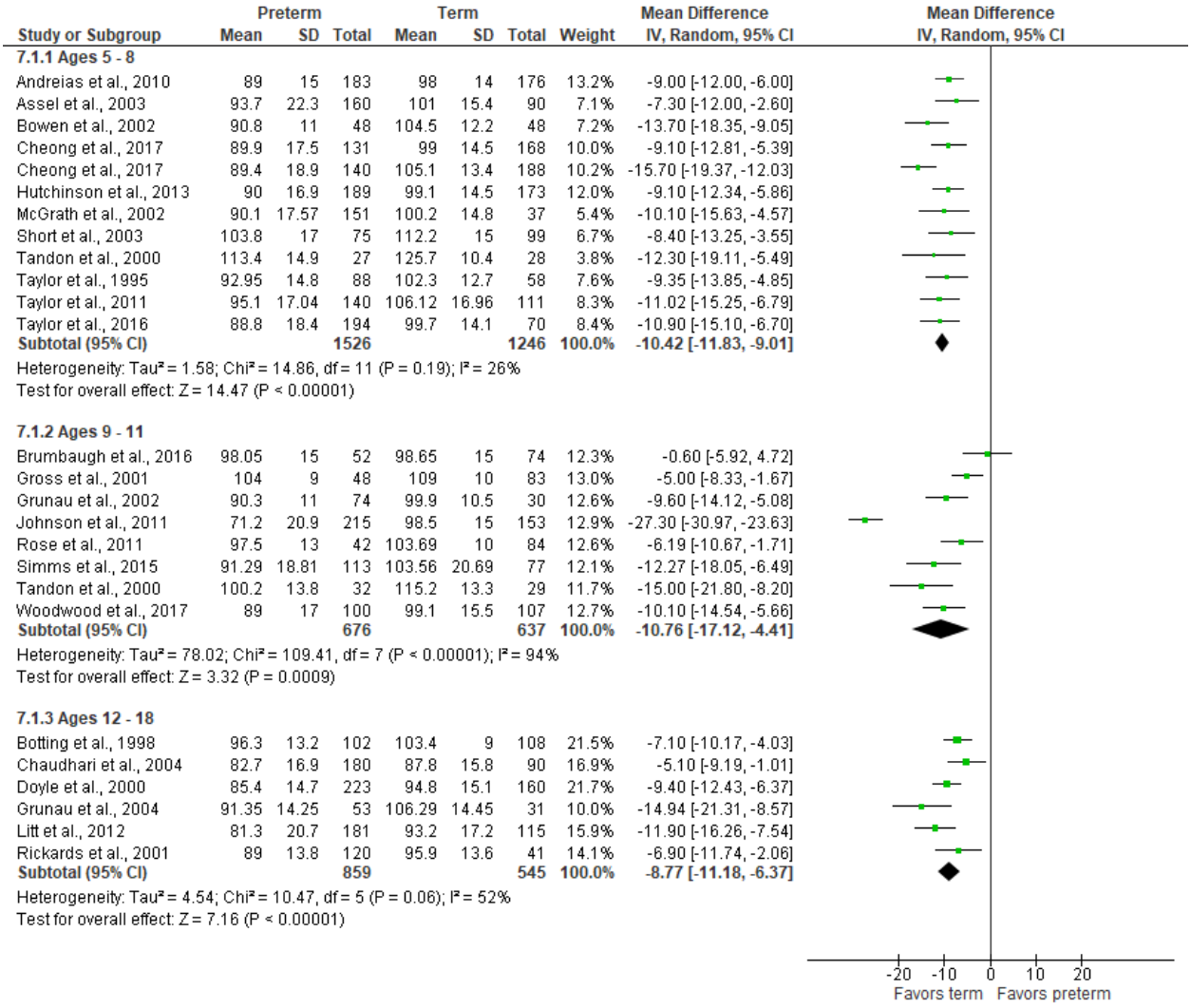
eFigure 3. Inverse-Variance Random-Effects Forest Plot of Gestational Age and Mathematics Outcomes for Preterm and Term-Born Children



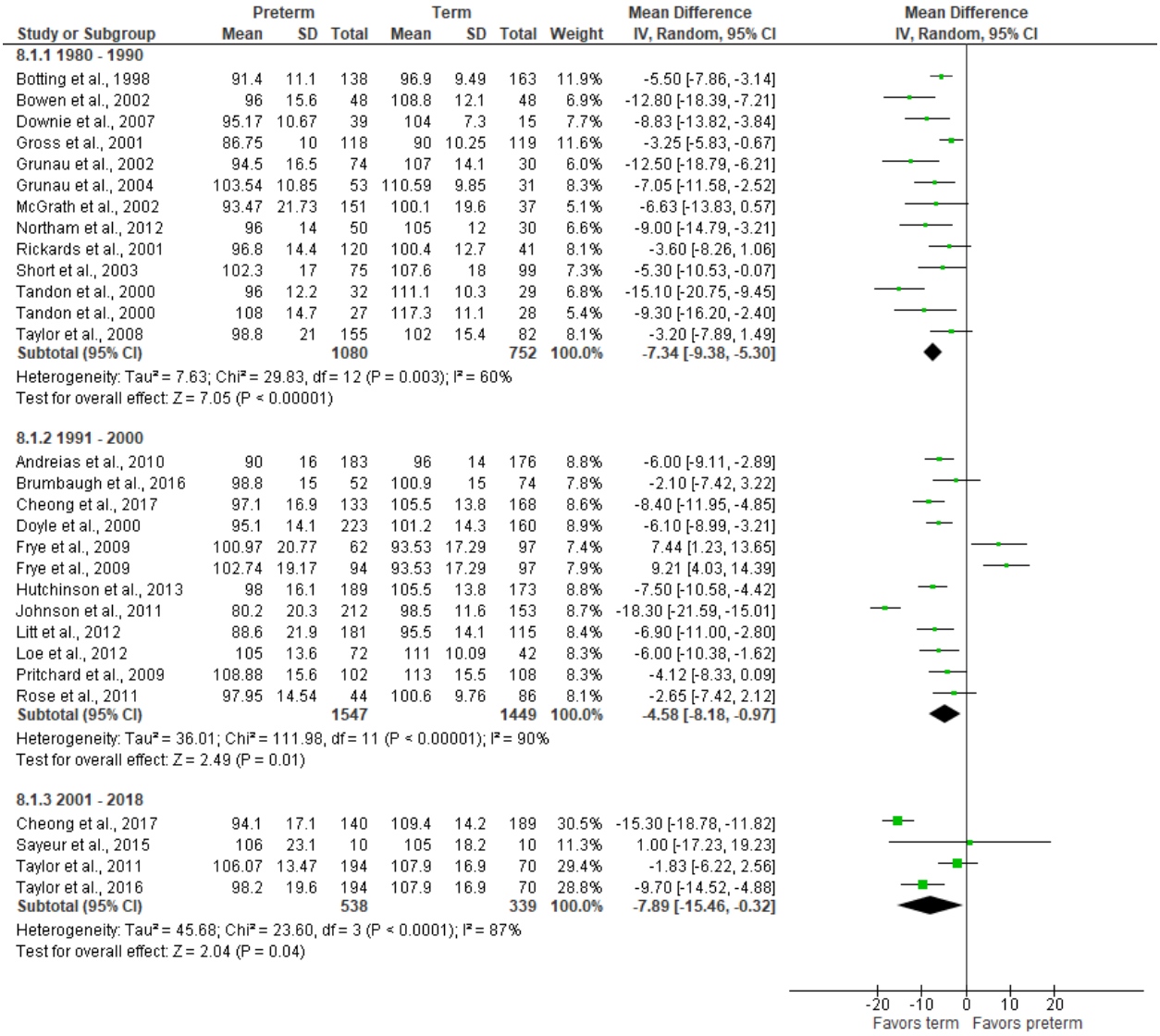
eFigure 4. Inverse-Variance Random-Effects Forest Plot of Assessment Age and Reading Outcomes for Preterm and Term-Born Children



eFigure 5. Inverse-Variance Random-Effects Forest Plot of Assessment Age and Mathematics Outcomes for Preterm and Term-Born Children



eFigure 6. Inverse-Variance Random-Effects Forest Plot of Birth Era and Reading Outcomes for Preterm and Term-Born Children



eFigure 7. Inverse-Variance Random-Effects Forest Plot of Birth Era and Mathematics Outcomes for Preterm and Term-Born Children