

Supplementary Materials

Orthographic depth & Developmental Dyslexia: a meta-analytic study

Supplementary Table S1. Studies included in the meta-analyses. For each single study we report the cognitive domain, the behavioural test adopted and the type of measure, the country, the sample age, the language, the level of orthographic depth and depth grade as indicated in Seymour et al. (2003).

Authors	Cognitive Domain	Measure	Test	Sample Age	Country	Language	Depth	Depth Grade
<i>Burani et al. (2018)</i>	Non-Verbal Reasoning		CPM	Children	Italy	Italian	Shallow	2
<i>Calcutt et al., (2018)</i>	Word reading	Accuracy	BELEC	Children	Belgium	French	Deep	4
	Non-lexical decoding	Accuracy	BELEC	Children				
	Phonological Awareness (Manipulation & STM)	Accuracy	BELEC	Children				
	Non-Verbal Reasoning		Wechsler Non Verbal scale of ability (Wechsler, 1996)	Children				
<i>Cancer & Antonietti (2018)</i>	RAN	Time	Rapid Naming Test and Visual Search of Colours, Figures, and Numbers	Adults	Italy	Italian	Shallow	2
	Short-Term/WM	Digit span Forward, Digit Span Backward	WAIS-R	Adults				
<i>Casini et al. (2018)</i>	Word reading	Accuracy	L2MA	Children	France	French	Deep	4
	Word reading	Time Limited	LUM	Children				
	Phonological Awareness (Manipulation)	Accuracy	(Sprenger-Charolles et al. 2005)	Children				
	Short-Term/WM	Digit span Forward, Digit Span Backward		Children				
<i>Caverzasi et al. (2018)</i>	Word reading	Time Limited	TOWRE	Children	USA	English	Deep	5
	Non-Lexical Decoding	Time Limited	TOWRE	Children				
	Non-Verbal Reasoning		WASI	Children				
<i>Centanni et al. (2018)</i>	Non-Lexical Decoding	Time Limited	TOWRE-PDE	Children	USA	English	Deep	5
	Non-verbal Reasoning		RIAS	Children				
<i>Gabay & Holt (2018)</i>	Word reading	Time Limited	TOWRE-II	Adults	USA	English	Deep	5
	Non-Lexical Decoding	Time Limited	TOWRE-II	Adults				

Authors	Cognitive Domain	Measure	Test	Sample Age	Country	Language	Depth	Depth Grade
	Phonological Awareness (Manipulation)	Accuracy	Brunswick, McCrory, Price, Frith, Frith (1999)	Adults				
	RAN	Accuracy	Denkla & Rudel (1976)	Adults				
	Short-Term/WM	Digit span Forward and Backward	WAIS-III	Adults				
	Non-Verbal Reasoning		SPM	Adults				
<i>Giraldo-Chica & Schneider (2018)</i>	Non-Lexical Decoding	Accuracy	WJ III	Adults	USA	English	Deep	5
	Phonological Awareness (Manipulation)	Accuracy	CTOPP	Adults				
	RAN	Time	CTOPP	Adults				
	Short-Term/WM	Digit span Forward and Backward	WAIS-III	Adults				
	Non-Verbal Reasoning		WAIS-III	Adults				
<i>Jones et al. (2018)</i>	Word reading	Accuracy, Time Limited	TOWRE	Adults	UK	English	Deep	5
	Non-Lexical Decoding	Accuracy, Time Limited	TOWRE	Adults				
	RAN	Time	CTOPP	Adults				
	Non-Verbal Reasoning		WASI	Adults				
<i>Lou et al. (2018)</i>	Word reading	Accuracy	ODEDYS	Children	France	French	Deep	4
	Phonological Awareness (Manipulation)	Accuracy	Sprenger Charolles et al. (2005)	Children				
	RAN	Time	Plaza & Robert-Jahier, (2006)	Children				
	Short-Term/WM	Digit span Forward and Backward	WISC-IV	Children				
<i>Mahé et al. (2018)</i>	Word reading	Accuracy, Time Unlimited	ECLA+16	Adults	France	French	Deep	4
	Non-Lexical Decoding	Accuracy, Time Unlimited	ECLA+16	Adults				
	Phonological Awareness (Manipulation)	Accuracy	ECLA+16	Adults				
	RAN	Time	Evalad Battery	Adults				
	Non-Verbal Reasoning		SPM	Adults				

Authors	Cognitive Domain	Measure	Test	Sample Age	Country	Language	Depth	Depth Grade
<i>Nittrouer et al. (2018)</i>	Short-Term/WM	Forward Digit Span	WISC-IV	Children	USA	English	Deep	5
<i>Paz-Alonso et al. (2018)</i>	Word reading	Accuracy, Time Unlimited	PROLEC	Adults	Spain	Spanish	Shallow	2
	Non-Lexical Decoding	Accuracy, Time Unlimited	PROLEC	Adults				
	Phonological Awareness (Manipulation & STM)	Accuracy		Adults				
	Short-Term/WM	Working Memory Span	WISC-R	Adults				
	Non-Verbal Reasoning		WISC-R	Adults				
<i>Toffalini et al. (2018)</i>	Non-Lexical Decoding	Accuracy, Time Unlimited	DDE-2	Children	Italy	Italian	Shallow	2
	Short-Term/WM	Forward Digit Span	WISC-IV	Children				
<i>Zuk et al. (2018)</i>	Word reading	Time Limited	TOWRE	Children	USA	English	Deep	5
	Non-Verbal Reasoning		K-BIT	Children				
<i>Alloway et al. (2017)</i>	Short-Term/WM	Verbal Working Memory	AWMA	Children	UK	English	Deep	5
	Non-Verbal Reasoning		WASI	Children				
<i>Bonifacci et al. (2017)</i>	Word reading	Time Limited	ALCE	Children	Italy	Italian	Shallow	2
	Non-Lexical Decoding	Time Limited	ALCE	Children				
	Non-Verbal Reasoning		Thurstone & Thurstone (1963, 1981)	Children				
<i>Cavalli et al. (2017)</i>	Non-Lexical Decoding	Accuracy,	Sprenger-Charolles et al. (2005)	Adults	France	French	Deep	4
	Phonological Awareness (Manipulation & STM)	Accuracy	Sprenger-Charolles et al. 2005	Adults				
<i>Danelli et al. (2017)</i>	Word reading	Accuracy, Time Unlimited	Paulesu et al. (2001)	Adults	Italy	Italian	Shallow	2
	Non-Lexical Decoding	Accuracy	Paulesu et al. (2001)	Adults				
	Phonological Awareness (Manipulation)	Accuracy	Paulesu et al. (2001)	Adults				
	Non-Verbal Reasoning		WAIS-R	Adults				
<i>Henderson & Warmington (2017)</i>	Word reading	Time Limited	TOWRE	Adults	UK	English	Deep	5

Authors	Cognitive Domain	Measure	Test	Sample Age	Country	Language	Depth	Depth Grade
	Non-Lexical Decoding	Time Limited	TOWRE	Adults				
	Phonological Awareness (Manipulation)	Accuracy	CTOPP	Adults				
	Short-Term/WM	Verbal Working Memory	AWMA	Adults				
	Non-Verbal Reasoning		WASI	Adults				
<i>Papagiannopoulou & Lagopoulos (2017)</i>	Word reading	Time Limited	One minute reading	Children	Australia	English	Deep	5
	Phonological Awareness (Manipulation)	Accuracy		Children				
	RAN	Time	DEST/DST-J	Children				
<i>Rüsseler et al. (2017)</i>	Word reading	Accuracy		Adults	Germany	German	Shallow	2
	Non-Lexical Decoding	Accuracy						
	Non-Verbal Reasoning		WAIS	Adults				
<i>Sigurdardottir et al. (2017)</i>	Word reading	Accuracy, Time Limited	IS-FORM	Adults	Iceland	Icelandic	Shallow	2
	Non-Lexical Decoding	Accuracy, Time Limited	IS-PSEUDO	Adults				
	Non-Verbal Reasoning		WAIS	Adults				
<i>Vender et al. (2017)</i>	Word reading	Accuracy, Time Unlimited	DDE-2	Children	Italy	Italian	Shallow	2
	Non-Lexical Decoding	Accuracy,	DDE-2	Children				
	Phonological Awareness (STM)	Accuracy	Stella & Job (2001)	Children				
	Short-Term/WM	Digit span Forward, Digit Span Backward	Memory Battery For Children	Children				
<i>Ye et al. (2017)</i>	Word reading	Accuracy		Adults	Germany	German	Shallow	2
	Non-Lexical Decoding	Accuracy		Adults				
	Non-Verbal Reasoning		WAIS	Adults				
<i>Calcus et al., (2016)</i>	Word reading	Accuracy	BELEC	Children	Belgium	French	Deep	4
	Phonological Awareness (Manipulation & STM)	Accuracy	BELEC	Children				

Authors	Cognitive Domain	Measure	Test	Sample Age	Country	Language	Depth	Depth Grade
	Non-Verbal Reasoning		Wechsler Nonverbal Scale of Ability (Wechsler, 1996).	Children				
<i>Cavalli et al. (2016)</i>	Word reading	Accuracy, Time Unlimited	EVALEC	Adults	France	French	Deep	4
	Non-Lexical Decoding	Accuracy, Time Unlimited	EVALEC	Adults				
	Phonological Awareness (Manipulation & STM)	Accuracy	EVALEC	Adults				
	Non-Verbal Reasoning		SPM	Adults				
<i>Cutini et al. (2016)</i>	Phonological Awareness (Manipulation & STM)	Accuracy	Southern British English	Children	UK	English	Deep	5
	RAN	Time	Richardson et al. (2004)	Children				
	Non-Verbal Reasoning		WISC-III	Children				
<i>Farris et al. (2016)</i>	Word reading	Accuracy, Time Limited	WRMT	Children	USA	English	Deep	5
	Non-Lexical Decoding	Accuracy, Time Limited	WRMT	Children				
<i>Ghisi et al. (2016)</i>	Word reading	Accuracy, Time Limited	DDE-2	Adults	Italy	Italian	Shallow	2
	Non-Lexical Decoding	Accuracy, Time Limited	DDE-2	Adults				
<i>Goswami et al. (2016)</i>	Phonological Awareness (Manipulation & STM)	Accuracy	Thomson & Goswami (2008)	Children	UK	English	Deep	5
	RAN	Time	Kuppeen et al. (2011)	Children				
<i>Jones et al. (2016)</i>	Word reading	, Time Unlimited	TOWRE	Adults	UK	English	Deep	5
	Non-Lexical Decoding	Accuracy, Time Unlimited	TOWRE	Adults				
	RAN	Time	CTOPP	Adults				
	Non-Verbal Reasoning		WASI	Adults				
<i>Koerte et al. (2016)</i>	Word reading	Time Limited	Salzburger Reading and Spelling Test	Children	Germany	German	Shallow	2
	Non-Lexical Decoding	Time Limited	Salzburger Reading and Spelling Test	Children				
	RAN	Accuracy/Time Limited	Denckla & Rudel (1976)	Children				
	Short-Term/WM	Digit span Forward and Backward	WISC-IV	Children				

Authors	Cognitive Domain	Measure	Test	Sample Age	Country	Language	Depth	Depth Grade
<i>Palladino et al. (2016)</i>	Non-Verbal Reasoning		CPM	Children	Italy	Italian	Shallow	2
<i>Saksida et al. (2016)</i>	Word reading	Accuracy, Time Unlimited	ODEDYS	Children	France	French	Deep	4
	Non-Lexical Decoding	Accuracy, Time Unlimited	ODEDYS	Children				
	Phonological Awareness (Manipulation)	Accuracy	Sprenger-Charolles et al. (2005)	Children				
	RAN	Time		Children				
<i>Talli et al. (2016)</i>	Word reading	Time Limited	Hatzigeorgiou et al. (2000)	Children	Greece	Greek	Shallow	2
	Non-Lexical Decoding	Time Limited	Protopapas et al. (2012)	Children				
	Phonological Awareness (Manipulation & STM)	Accuracy	EVALEC	Children				
	RAN	Time	Vellutino et al. (2004)	Children				
<i>Varnet et al. (2016)</i>	Word reading	Accuracy, Time Unlimited	ECLA+16	Adults	France	French	Deep	4
	Non-Lexical Decoding	Accuracy, Time Unlimited	ECLA+16	Adults				
	Phonological Awareness (Manipulation & STM)	Accuracy	ECLA+16	Adults				
	Short-Term/WM	Digit span Forward and Backward	ECLA+16	Adults				
	Non-Verbal Reasoning		SPM	Adults				
<i>Binamé et al. (2015)</i>	Non-Verbal Reasoning		SPM	Children	France	French	Deep	4
<i>Cantiani et al. (2015)</i>	Phonological Awareness (Manipulation & STM)	Accuracy	VAUMeLF	Children	Italy	Italian	Shallow	2
	Short-Term/WM	Digit span Forward and Backward	Bisiacchi et al. (2005)	Children				
	Non-Verbal Reasoning		Cattell (1979)	Children				
<i>Christmann et al. (2015)</i>	Word reading	Accuracy, Time Unlimited	Schulte-Körne, (2001)	Adults	Germany	German	Shallow	2
	Non-Lexical Decoding	Accuracy, Time Unlimited	Schulte-Körne, (2001)	Adults				
	Non-Verbal Reasoning		CFT-20-R	Adults				
<i>Furnes & Norman (2015)</i>	Non-Verbal Reasoning		(Naglieri, 2008)	Adults	Norway	Norwegian	Shallow	2
<i>Gabay et al. (2015)</i>	Word reading	Time Limited	TOWRE	Adults	USA	English	Deep	5

Authors	Cognitive Domain	Measure	Test	Sample Age	Country	Language	Depth	Depth Grade
	Non-Lexical Decoding	Accuracy	WRMT-R	Adults				
	Non-Lexical Decoding	Time Limited	TOWRE	Adults				
	Phonological Awareness (Manipulation)	Accuracy	Brunswick et al. (1999)	Adults				
	Short-Term/WM	Forward Digit Span	WAIS	Adults				
	Non-Verbal Reasoning		SPM	Adults				
<i>Langer et al. (2015)</i>	Word reading	Time Limited	TOWRE	Children	USA	English	Deep	5
	Non-Lexical Decoding	Time Limited	TOWRE	Children				
	Phonological Awareness (Manipulation & STM)	Accuracy	CTOPP	Children				
	RAN	Accuracy	RAN/RAS	Children				
	Non-Verbal Reasoning		K-BIT	Children				
<i>Martinez Perez et al. (2015)</i>	Word reading	Time Unlimited		Adults	France	French	Deep	4
	Non-Verbal Reasoning		SPM	Adults				
<i>Moores et al. (2015)</i>	Word reading	Accuracy	PALPA	Adults	UK	English	Deep	5
	Non-Lexical Decoding	Accuracy	PALPA	Adults				
<i>Rüsseler et al. (2015)</i>	Word reading	Accuracy	Rüsseler et al. (2003)	Adults	Germany	German	Shallow	2
	Non-Lexical Decoding	Accuracy	Rüsseler et al. (2003)	Adults				
	Phonological Awareness (STM)	Accuracy	ZTL Mottier Test subtest	Adults				
	Non-Verbal Reasoning		WAIS-R	Adults				
<i>Suárez-Coalla & Cuetos (2015)</i>	Word reading	Accuracy, Time Unlimited	Ramos & Cuetos, (2005)	Adults	Spain	Spanish	Shallow	2
	Non-Lexical Decoding	Accuracy	Ramos & Cuetos, (2005)	Adults				
	Phonological Awareness (Manipulation & STM)	Accuracy		Adults				
	RAN	Time		Adults				
	Short-Term/WM	Digit span Forward and Backward	WAIS-R	Adults				
	Non-Verbal Reasoning		WAIS-R	Adults				

Authors	Cognitive Domain	Measure	Test	Sample Age	Country	Language	Depth	Depth Grade
<i>Asbjørnsen et al. (2014)</i>	Non-Lexical Decoding	Accuracy	WJ-III	Children	USA	English	Deep	5
<i>Bogon et al. (2014)</i>	Word reading	Time Limited	One Minute Reading Fluency Test	Children	Germany	German	Shallow	2
	Non-Lexical Decoding	Time Limited	One Minute Reading Fluency Test	Children				
	Non-Verbal Reasoning		CFT-20-R	Children				
<i>Christodoulou et al. (2014)</i>	Word reading	Accuracy, Time Limited	WRMT	Adults	USA	English	Deep	5
	Non-Lexical Decoding	Accuracy	WRMT	Adults				
	Phonological Awareness (Manipulation & STM)	Accuracy	CTOPP	Adults				
	RAN	Accuracy	RAN/RAS	Adults				
	Short-Term/WM	Memory for digits	CTOPP	Adults				
	Non-Verbal Reasoning		WASI	Adults				
<i>Dole et al. (2014)</i>	Word reading	Accuracy, Time Unlimited	Alouette & ODEDYS	Adults	France	French	Deep	4
	Non-Lexical Decoding	Accuracy, Time Unlimited	ODEDYS	Adults				
	Phonological Awareness (Manipulation & STM)	Accuracy	ODEDYS	Adults				
	RAN	Time	ODEDYS	Adults				
	Short-Term/WM	Digit span Forward and Backward	ODEDYS	Adults				
	Non-Verbal Reasoning		SPM	Adults				
<i>Halliday et al. (2014)</i>	Word reading	Time Limited	TOWRE	Children	UK	English	Deep	5
	Non-Lexical Decoding	Time Limited	TOWRE	Children				
	Phonological Awareness (STM)	Accuracy	NEPSY	Children				
	Non-Verbal Reasoning		WASI	Children				
<i>Huestegge et al. (2014)</i>	Non-Verbal Reasoning		CFT-20-R	Children	Germany	German	Shallow	2
<i>Kim et al. (2014)</i>	Word reading	Time Limited	TOWRE	Adults	USA	English	Deep	5
	Non-Lexical Decoding	Time Limited	TOWRE	Adults				
	Phonological Awareness (Manipulation & STM)	Accuracy	CTOPP	Adults				

Authors	Cognitive Domain	Measure	Test	Sample Age	Country	Language	Depth	Depth Grade
	RAN	Accuracy	CTOPP	Adults				
	Short-Term/WM	Memory for digits	CTOPP	Adults				
<i>Leong & Goswami (2014)</i>	Word reading	Accuracy	WRAT-III	Adults	UK	English	Deep	5
	Phonological Awareness (Manipulation)	Accuracy	PhAB	Adults				
<i>Mahé et al. (2014)</i>	RAN	Time	Phonological Assessment Battery	Adults	France	French	Deep	4
	Non-Verbal Reasoning		SPM	Adults				
<i>Perea et al. (2014)</i>	Word reading	Accuracy, Time Unlimited	PROLEC-R	Children	Spain	Spanish	Shallow	2
	Non-Lexical Decoding	Accuracy, Time Unlimited	PROLEC-R	Children				
<i>Ruffino et al. (2014)</i>	Word reading	Accuracy	DDE-2	Children	Italy	Italian	Shallow	2
	Non-Lexical Decoding	Accuracy	DDE-2	Children				
	Phonological Awareness (Manipulation & STM)	Accuracy		Children				
<i>Saralegui et al. (2014)</i>	Word reading	Accuracy, Time Unlimited	PROLEC-R	Children	Spain	Spanish	Shallow	2
	Non-Lexical Decoding	Accuracy, Time Unlimited	PROLEC-R	Children				
	Short-Term/WM	Digit span Forward and Backward	WISC-IV	Children				
<i>Suarez-Coalla et al. (2014)</i>	Word reading	Accuracy, Time Unlimited	PROLEC-R	Children	Spain	Spanish	Shallow	2
	Non-Lexical Decoding	Accuracy, Time Unlimited	PROLEC-R	Children				
	Non-Verbal Reasoning		WISC	Children				
<i>Sumner et al. (2014)</i>	Phonological Awareness (Manipulation)	Accuracy	Screening Test Junior	Children	UK	English	Deep	5
<i>Varvara et al. (2014)</i>	Phonological Awareness (STM)	Accuracy	Marotta, 2008	Children	Italy	Italian	Shallow	2
<i>Zoubrinetzsky et al. (2014)</i>	Word reading	Accuracy, Time Unlimited	ODEDYS	Children	France	French	Deep	4
	Non-Lexical Decoding	Accuracy, Time Unlimited	ODEDYS	Children				
	Phonological Awareness (Manipulation)	Accuracy	BELEC	Children				

Authors	Cognitive Domain	Measure	Test	Sample Age	Country	Language	Depth	Depth Grade
<i>Altarelli et al. (2013)</i>	Phonological Awareness (Manipulation)	Accuracy	Sprenger-Charolles et al. (2005)	Children	France	French	Deep	4
	RAN	Time	Plaza & Robert-Jahier, (2006)	Children				
	Short-Term/WM	Digit span Forward and Backward	WISC	Children				
<i>Anderson et al. (2013)</i>	Word reading	Accuracy	WJ III	Children	USA	English	Deep	5
	Non-Lexical Decoding	Accuracy	WJ III	Children				
	Phonological Awareness (Manipulation)	Accuracy	Gottardo et al. (2001)	Children				
	Non-Verbal Reasoning		Naglieri (1985)	Children				
<i>Du & Kelly (2013)</i>	Phonological Awareness (Manipulation)	Accuracy	Perin, 1983		UK	English	Deep	5
	RAN	Time	Denckla & Rudel, (1976)	Adults				
	Short-Term/WM	Verbal Working Memory	AWMA	Adults				
	Non-Verbal Reasoning		WASI	Adults				
<i>Hazan et al. (2013)</i>	Word reading	Time Limited	TOWRE	Children	UK	English	Deep	5
	Non-Lexical Decoding	Time Limited	TOWRE	Children				
	Phonological Awareness (STM)	Accuracy	CNRep	Children				
<i>Jones et al. (2013)</i>	Word reading	Accuracy	WRAT	Adults	UK	English	Deep	5
	Non-Lexical Decoding	Accuracy	PATSy	Adults				
	Phonological Awareness (Manipulation)	Accuracy	Hatcher et al. (2002)	Adults				
	RAN	Time	Denckla & Rudel, (1976)	Adults				
	Short-Term/WM	Digit span Forward and Backward	Miles, (1993)	Adults				
	Non-Verbal Reasoning		WAIS III	Adults				
<i>Judge et al. (2013)</i>	Word reading	Accuracy	WRAT	Adults	UK	English	Deep	5
	Non-Lexical Decoding	Accuracy	WRMT	Adults				
	Phonological Awareness (Manipulation)	Accuracy	Judge et al. (2007)	Adults				
	Short-Term/WM	Forward Digit Span	WAIS III	Adults				

Authors	Cognitive Domain	Measure	Test	Sample Age	Country	Language	Depth	Depth Grade
	Non-Verbal Reasoning		WASI	Adults				
<i>Koyama et al. (2013)</i>	Word reading	Time Limited	TOWRE	Children	USA	English	Deep	5
	Non-Lexical Decoding	Time Limited	TOWRE	Children				
<i>Lallier et al. (2013a)</i>	Word reading	Accuracy, Time Unlimited	ODEDYS	Children	France	French	Deep	4
	Non-Lexical Decoding	Accuracy, Time Unlimited	ODEDYS	Children				
<i>Lallier et al. (2013b)</i>	Word Reading	Accuracy, Time Unlimited	ODEDYS	Children	France	French	Deep	4
	Non-Lexical Decoding	Accuracy, Time Unlimited	ODEDYS	Children				
<i>Lallier et al. (2013c)</i>	Word Reading	Time Limited	DAST	Adults	UK	English	Deep	5
	Phonological Awareness (Manipulation)	Accuracy	DAST	Adults				
	RAN	Accuracy	DAST	Adults				
	Short-Term/WM	Backward Digit Span	DAST	Adults				
	Non-Verbal Reasoning		WAIS III	Adults				
<i>Martinez Perez et al. (2013)</i>	Word reading	Accuracy, Time Unlimited	Poncellet (1999)	Adults	Belgium	French	Deep	4
	Non-Lexical Decoding	Accuracy, Time Unlimited	Poncellet (1999)	Adults				
	RAN	Time	Phonological Assessment Battery	Adults				
	Non-Verbal Reasoning		SPM	Adults				
<i>Mundy & Carroll (2013)</i>	Word reading	Time Limited	TOWRE	Adults	UK	English	Deep	5
	Non-Lexical Decoding	Time Limited	TOWRE	Adults				
	Non-Verbal Reasoning		WASI	Adults				
<i>Nittrouer & Lowenstein (2013)</i>	Word reading	Accuracy	WRAT	Children	USA	English	Deep	5
<i>Palladino et al. (2013)</i>	Non-Verbal Reasoning		SPM	Children	Italy	Italian	Shallow	2
<i>Reilhac et al. (2013)</i>	Word reading	Accuracy, Time Unlimited	Alouette	Adults	France	French	Deep	4
	Non-Lexical Decoding	Accuracy, Time Unlimited	ODEDYS	Adults				

Authors	Cognitive Domain	Measure	Test	Sample Age	Country	Language	Depth	Depth Grade
	Phonological Awareness (Manipulation)	Accuracy	(Paulesu et al. 2001)	Adults				
<i>Zhang et al. (2013)</i>	Word reading	Accuracy, Time Limited	WRMT	Adults	USA	English	Deep	5
	Non-Lexical Decoding	Accuracy, Time Limited	WRMT	Adults				

Supplementary Table S2: For each single meta-analysis Random Effect Models (REMLs), without and with moderators, and a Fixed Effect Model (FE) were run. In what follows Aikake Information Criterion (AIC) values are reported. Model selection was made on the basis of the AIC value.

Meta-analysis	Model	AIC
Word Reading Accuracy	REML without moderators	91.86
	REML with moderators	70.86
	FE	tau $\neq$ 0*
Word Reading TU	REML without moderators	28.9
	REML with moderators	31.69
	FE	tau $\neq$ 0*
Word Reading TL	REML without moderators	35.68
	REML with moderators	38.17
	FE	tau $\neq$ 0*
Non-Lexical Decoding Accuracy	REML without moderators	66.44
	REML with moderators	54.75
	FE	tau $\neq$ 0*
Non-Lexical Decoding TU	REML without moderators	24.37
	REML with moderators	28.24
	FE	tau $\neq$ 0*
Non-Lexical Decoding TL	REML without moderators	46.06
	REML with moderators	45.38
	FE	tau $\neq$ 0*
Phonological Manipulation	REML without moderators	43.87
	REML with moderators	47.94
	FE	tau $\neq$ 0*
Nonword Repetition	REML without moderators	28.26
	REML with moderators	30.37
	FE	tau $\neq$ 0*
RAN	REML without moderators	41.78
	REML with moderators	43.53
	FE	tau $\neq$ 0*
Short-Term/WM	REML without moderators	34.43
	REML with moderators	37.09
	FE	tau $\neq$ 0*
Non-Verbal Reasoning	REML without moderators	38.30
	REML with moderators	42.88
	FE	35.92

*The Fixed Effect Model (FE) was not run in the case of tau $\neq$ 0 because the absence of data heterogeneity could not be assumed.

Supplementary Table S3: For each single meta-analysis the number of studies stratified for Orthographic Depth (Shallow vs. Deep) and Age (Children vs. Adults) is reported, together with the average ES of the between-group (dyslexic vs. controls readers) differences of age, in terms of years. To verify whether differences of age, moderated by the orthography or the age-group can be found, the orthography-by-age interaction effect was tested with a REML on each cognitive dimension. The P-value of the interaction effect is reported in the table.

Word Reading							
	Orthographic Depth	Age	Records (k)	Average ES of age	min.	max.	Interaction Effect (p-value)
Accuracy	Shallow	Children	6	-0.35	-0.43	-0.28	0.32
		Adults	9	-0.13	-0.20	-0.06	
	Deep	Children	13	-0.18	-0.20	-0.16	
		Adults	13	-0.17	-0.23	-0.11	
Fluency (TU)	Shallow	Children	3	-0.38	-0.5	-0.27	0.57
		Adults	4	-0.03	-0.12	0.05	
	Deep	Children	4	-0.19	-0.22	-0.16	
		Adults	8	-0.08	-0.16	-0.01	
Fluency (TL)	Shallow	Children	3	0.07	-0.16	0.03	0.22
		Adults	1*				
	Deep	Children	11	0.01	-0.06	0.08	
		Adults	8	-0.33	-0.4	-0.25	
Non-Lexical Decoding							
	Orthographic Depth	Age	Records (k)	Average ES of age	min.	max.	Interaction Effect (p-value)
Accuracy	Shallow	Children	6	-0.29	-0.36	0.22	0.51
		Adults	8*	0.13	-0.20	0.06	
	Deep	Children	7	-0.19	-0.21	-0.16	
		Adults	16	-0.14	-0.20	-0.09	
Fluency (TU)	Shallow	Children	5	-0.36	-0.43	-0.28	0.78
		Adults	3	-0.03	-0.12	0.05	
	Deep	Children	4	-0.19	-0.24	-0.18	
		Adults	8	-0.08	-0.15	0.01	
Fluency (TL)	Shallow	Children	4	0.06	-0.15	0.03	0.19

	Deep	Adults	1*				
		Children	8	0.21	-0.1	0,.06	
		Adults	7	-0.31	-0.39	0.22	
Phonological Awareness							
	Orthographic Depth	Age	Records (k)	Average ES of age	min.	max.	Interaction Effect (p-value)
Phonogical Manipulation	Shallow	Children	4	0.02	-0.07	0.11	0.96
		Adults	2*	0.02	-0.08	0.13	
	Deep	Children	13	-0.18	-0.21	-0.16	
		Adults	17	-0.12	-0.18	-0.06	
Nonword repetition	Shallow	Children	5*	-0.22	-0.30	-0.13	0.25
		Adults	3	0.05	-0.05	0.15	
	Deep	Children	7*	-0.03	-0.1	-0.05	
		Adults	5	-0.06	-0.17	0.04	
Other Cognitive Skills							
	Orthographic Depth	Age	Records (k)	Average ES of age	min.	max.	Interaction Effect (p-value)
RAN	Shallow	Children	2	0.18	0.04	0.32	0.68
		Adults	2	0.19	0.08	0.30	
	Deep	Children	8	-0.19	-0.22	-0.16	
		Adults	15	-0-20	-0.26	-0.14	
Short-Term/WM	Shallow	Children	5	-0.22	-0.31	-0.14	0.35
		Adults	3	0.14	0.04	0.23	
	Deep	Children	8	-0.27	-0.34	-0.21	
		Adults	14	-0.15	-0.22	-0.09	
Non-Verbal Reasoning	Shallow	Children	8	-0.08	-0.14	0.02	0.54
		Adults	9	0.03	-0.04	0.11	
	Deep	Children	12	-0.25	-0.31	-0.18	
		Adults	20	-0.19	-0.24	-0.14	

*one missing observation due to incomplete information (SD for age was not reported)