DESCRIPTIVE STATISTICS AND ASSOCIATIONS AMONG STUDY VARIABLES

In order to reduce the possibility of including cases of learning or reading disorders (such as dyslexia), we excluded from the analysis 14 children whose reading times were outliers (larger than 3 standard deviations from the mean) resulting in a final sample of n = 348. A list of descriptive statistics by grade and LEO is provided in Table 1. Associations between study variables are described in Table 2. Reading comprehension scores improved with attention, shifting and intelligence scores, and faster reading times ($-.340 < r < .397$, $p < .001$). In turn, reading times were lower as shifting ($r = - .282$) and fluid intelligence ($r = - .279$) scores improved ($p < .001$). In accordance with Diamond (2013) EF model, significant associations were found between attention, shifting and fluid intelligence scores as well ($-.451 < r < .454$, $p < .001$). The following sections examine the effects of children's grade and LEO on cognitive skills and reading comprehension, and the specific relationship between reading comprehension performance, contextual variables and cognitive functioning.

Table 1
Descriptive Statistics

	Grade	LEO	Mean	SD	Minimum	Maximum
Age	2	medium	7.71	0.308	7.15	8.14
		low	7.78	0.396	7.16	9.00
	3	medium	8.68	0.298	8.17	9.17
		low	8.60	0.240	8.19	9.14
	4	medium	9.66	0.322	9.18	10.18
		low	9.67	0.313	9.19	10.56
	5	medium	10.68	0.396	8.54	11.18
		low	10.62	0.384	10.06	12.09
Attention	2	medium	34.08	4.980	13	38
		low	31.13	5.507	11	38
	3	medium	35.24	2.475	25	38
		low	32.97	4.557	19	38
	4	medium	35.35	2.033	31	38
		low	33.32	6.320	2	38
	5	medium	35.76	2.274	28	38
		low	34.84	2.754	29	38
Shifting	2	medium	11.41	0.369	10.71	12.30

	Grade	LEO	Mean	SD	Minimum	Maximum
		low	11.43	0.356	10.76	12.24
	3	medium	11.09	0.309	10.44	12.20
		low	11.31	0.285	10.78	12.02
	4	medium	10.93	0.296	10.27	11.42
		low	11.07	0.357	10.51	12.55
	5	medium	10.82	0.346	10.06	11.87
		low	10.91	0.297	10.28	11.54
Intelligence	2	medium	22.77	4.848	4	30
		low	20.27	4.941	12	29
	3	medium	25.32	4.581	15	34
		low	20.19	4.324	12	29
	4	medium	26.30	4.438	15	31
		low	24.08	4.948	4	32
	5	medium	27.97	3.946	13	33
		low	25.73	3.791	18	33
Reading comprehension	2	medium	3.96	1.031	2.00	6.00
		low	3.63	1.273	1.00	5.00
	3	medium	5.38	0.941	3.00	6.00
		low	4.39	1.145	2.00	6.00
	4	medium	5.15	0.933	3.00	6.00
		low	4.62	1.193	2.00	6.00
	5	medium	5.30	0.859	2.00	6.00
		low	5.00	0.882	3.00	6.00
Rtimes	2	medium	1426.42	1037.395	465.14	4964.03
		low	2480.91	1994.093	552.07	9391.36
	3	medium	1016.79	725.806	439.92	5957.52
		low	1551.96	955.639	476.21	4204.58
	4	medium	939.78	402.570	383.70	1808.58
		low	1099.53	590.452	400.26	3541.43
	5	medium	646.47	288.983	343.40	1657.08
		low	845.09	510.690	369.58	2649.99

Table 2
Pearson Correlation Matrix

	Reading comprehension	Reading times	Attention	Shifting	Intelligence
Reading comprehension	—				
Reading times	-0.340 ***	—			
Attention	0.294 ***	-0.069	—		
Shifting	-0.330 ***	0.290 ***	-0.282 ***	—	
Intelligence	0.397 ***	-0.279 ***	0.464 ***	-0.451 ***	—

Note. * *p* < .05, ** *p* < .01, *** *p* < .001