

Associations Between Exposures and Education Outcomes										
Outcome	Specific Outcome	Exposure	Age Group	Population	Study Design	Lead Author, Date	r with 95% CI	I <sup>2</sup>	K	N
Learning	General	TV programs and movies: General	Mixed	General	Cross-sectional only	Adelantado-Renau, 2019	-0.10 [-0.15, -0.04]	98%	18	62,135
	General	TV programs and movies: General	Mixed	General	Mixed or unspecified	Williams, 1982	-0.09 [-0.13, -0.04]	96%	23	86,507
	General	Video games: General	Mixed	General	Cross-sectional only	Adelantado-Renau, 2019	-0.08 [-0.12, -0.04]	40%	10	4,276
	General	Video games: Educational (with instructional support)	Children	General	Experimental	Wouters, 2013	0.15 [ 0.05, 0.25]	66%	16	1,287
	General	e-Books: Narration	Mixed	General	Experimental	Takacs, 2014	0.11 [ 0.05, 0.17]	56%	50	2,288
	Literacy and numeracy	Screen use: Educational apps	Young children	General	Experimental	Kim, 2021	0.21 [ 0.13, 0.30]	76%	15	2,011
	Literacy and numeracy	Screen use: Educational apps	Children	General	Experimental	Kim, 2021	0.15 [ 0.10, 0.20]	72%	36	5,447
	Motivation	Video games: Educational	Children	General	Experimental	Wouters, 2013	0.16 [ 0.02, 0.31]	84%	10	1,183
	Motivation	Video games: Educational (with competition)	Children	General	Mixed or unspecified	Arztmann, 2022	0.26 [ 0.17, 0.35]	82%	15	9,318
	General	Screen use: General	Mixed	General	Cross-sectional only	Adelantado-Renau, 2019	-0.11 [-0.24, 0.01]	98%	18	13,100
	General	Screen use: Touchscreens	Young children	General	Experimental	Xie, 2018	0.21 [ 0.15, 0.28]	86%	79	5,810
	General	Screen-based intervention: Augmented reality (in schools)	Mixed	General	Mixed or unspecified	Tekedere, 2016	0.33 [ 0.25, 0.42]	68%	15	1,474
	General	Screen-based intervention: Education (via touch screen)	Young children	General	Experimental	Xie, 2018	0.21 [ 0.15, 0.28]	86%	79	5,810
	General	Screen-based intervention: Literacy (Abracadabra; in schools)	Mixed	General	Experimental	Major, 2021	0.09 [ 0.06, 0.12]	90%	15	52,377
Literacy	General	Screen use: Educational apps	Children	General	Experimental	Kim, 2021	0.16 [ 0.06, 0.25]	58%	12	1,095
	General	Screen use: General	Mixed	General	Observational - mixed	Madigan, 2020	-0.14 [-0.20, -0.09]	90%	38	18,318
	General	Screen use: General (covieing)	Mixed	General	Observational - mixed	Madigan, 2020	0.15 [ 0.02, 0.28]	96%	12	6,083
	General	TV programs and movies: Educational	Mixed	General	Observational - mixed	Madigan, 2020	0.13 [ 0.03, 0.23]	82%	13	1,955
	Phonics	Screen-based intervention: Literacy (Abracadabra; in schools)	Children	General	Experimental	Abrami, 2020	0.09 [ 0.01, 0.17]	82%	11	4,954
	Reading	Screen-based intervention: Reading (technology supported)	Children	Poor readers	Experimental	Neitzel, 2022	0.04 [ 0.01, 0.06]	0%	27	5,736
	Reading comprehension	e-Books: General	Young children	General	Experimental	Furenes, 2021	-0.02 [-0.08, 0.03]	0%	26	1,192
Numeracy	General	Screen use: Educational apps	Children	General	Experimental	Kim, 2021	0.15 [ 0.08, 0.21]	76%	24	4,352
	General	Screen-based intervention: Mathematics	Mixed	General	Experimental	Li, 2010	0.27 [ 0.21, 0.33]	98%	85	36,793
	General	Video games: Numeracy	Mixed	General	Mixed or unspecified	Byun, 2018	0.32 [ 0.21, 0.43]	88%	25	2,008
	Mathematics	Video games: Educational	Mixed	General	Experimental	Tokac, 2019	0.06 [ 0.00, 0.12]	84%	39	6,557

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r with 95% and 99.9% CIs