

Review Characteristics								Quality Assessment ¹						
First Author	Year	Design Restrictions	Sample Restrictions	Year Range Earliest - Latest	Sample Age Restrictions (Age Range) ²	Outcomes Assessed	Exposures Assessed	Elig. Crit. ³	Lit. Search	Dual Screen	Dual Qual. ⁴	Studier Listed ⁵	Pub. Bias ⁶	Hetero ⁷
Abrami	2020	Include: Experimental designs	None specified	2009–2019	School-age Children (Primary, Elementary)	<ul style="list-style-type: none">Literacy: Listening comprehensionLiteracy: PhonicsLiteracy: Phonemic awarenessLiteracy: Reading comprehensionLiteracy: Reading fluencyLiteracy: Vocabulary knowledge	<ul style="list-style-type: none">Intervention: Literacy (Abcacadabra; in schools)	L	U	L	H	L	L	L
Adelantado-Renau	2019	Include: Cross-sectional studies	None specified	1982–2019	Children; Adolescents (5.7–18.0)	<ul style="list-style-type: none">Learning: GeneralLiteracy: GeneralNumeracy: General	<ul style="list-style-type: none">Screen use: GeneralTV programs and movies: GeneralVideo games: General	L	L	L	L	L	L	L
Aghasi	2020	Include: Observational	None specified	2007–2016	All (14.2–15.8)	<ul style="list-style-type: none">Body composition	<ul style="list-style-type: none">Internet use: General	U	L	L	U	L	L	L
Andrade	2019	Include: Interventions	Include: Overweight/obese	2010–2017	Children; Adolescents	<ul style="list-style-type: none">Healthy behavior: Self-efficacyPsychological health: DepressionPsychological health: EmploymentSelf-perceptions: GeneralSelf-perceptions: Self-esteem	<ul style="list-style-type: none">Video games: Physically active	U	L	L	U	L	H	L
Arztmann	2022	None specified	None specified	2008–2020	School-age Children (Primary, Elementary, Middle School)	<ul style="list-style-type: none">Learning: BehaviorLearning: Motivation	<ul style="list-style-type: none">Video games: Educational (with competition)	U	H	H	H	H	L	L
Aspiranti	2020	Include: Interventions	Include: Autism spectrum disorder	2013–2015	School-age Children (Primary, Elementary)	<ul style="list-style-type: none">Learning: General	<ul style="list-style-type: none">Intervention: Education (via touch screen)	U	L	L	H	L	H	L
Baradaran-Mahdavi	2021	Include: Observational; Exclude: Experimental	Exclude: Medical conditions that may increase sedentary activities	1999–2019	All (9.0–16.0)	<ul style="list-style-type: none">Physical health: Lower back pain	<ul style="list-style-type: none">Screen use: General (excluding TV)TV programs and movies: General	U	H	L	L	L	L	L
Bartel	2015	None	Exclude: Atypical population (except for delayed sleep phase disorder or insomnia)	2004–2014	Adolescents (12.2–17.7)	<ul style="list-style-type: none">Sleep: BedtimeSleep: DurationSleep: Time to fall asleep	<ul style="list-style-type: none">Computer use: GeneralInternet use: GeneralScreen use: General (mobile phone)TV programs and movies: GeneralVideo games: General	L	L	U	U	L	U	U
Beck-Silva	2022	Include: Randomised controlled trials and quasi-RCTs	Exclude: Any disease	1999–2019	Adolescents	<ul style="list-style-type: none">Diet: Fat consumption	<ul style="list-style-type: none">Intervention: Nutrition (in schools)	L	L	L	L	L	H	L
Benavides-Varela	2020	Include: Randomised controlled trials	Include: Math difficulties	2006–2018	Children	<ul style="list-style-type: none">Numeracy: Mathematics	<ul style="list-style-type: none">Intervention: Mathematics	U	H	L	H	L	L	L
Blok	2002	None	Include: Regular readers or dyslexics	1990–2000	All (6.4–11.5)	<ul style="list-style-type: none">Literacy: Reading fluency	<ul style="list-style-type: none">Intervention: Literacy	U	L	H	H	L	H	L
Bossen	2020	Include: Randomised controlled trials	Include: Chronic disease	2011–2018	Children (10.0–15.7)	<ul style="list-style-type: none">Body compositionCardiometabolic health: FitnessPhysical activity: GeneralPhysical health: Muscular fitness	<ul style="list-style-type: none">Video games: Health promoting content	U	L	L	L	L	H	L
Boylund	2016	Include: Experimental	None specified	2004–2015	Children; Adolescents (8.0–10.4)	<ul style="list-style-type: none">Diet: Food intake	<ul style="list-style-type: none">Advertising: Unhealthy food	H	L	L	U	L	L	L
Byun	2018	Include: All quantitative designs	None specified	2006–2014	School-age Children	<ul style="list-style-type: none">Numeracy: General	<ul style="list-style-type: none">Video games: Numeracy	U	U	U	H	H	H	H
Cao	2020	Include: designs with control groups	Exclude: Brain damage	2002–2019	Children (3.4–14.3)	<ul style="list-style-type: none">Cognition: Executive functioningCognition: Executive Functioning (cognitive flexibility)Cognition: Executive Functioning (inhibition)Cognition: Executive Functioning (working memory)	<ul style="list-style-type: none">Computer use: Executive functioning training	U	H	U	H	L	L	L
Carter	2016	Include: All quantitative designs	Include: Healthy populations only	2011–2015	Children; Adolescents (10.0–17.0)	<ul style="list-style-type: none">Sleep: Inadequate durationSleep: DurationSleep: LethargySleep: Poor quality	<ul style="list-style-type: none">Screen use: General (mobile phone at bed time)	L	L	U	L	L	H	L
Champion	2019	Include: Randomised controlled trials	None specified	2003–2017	School-age Children (11.4–15.9)	<ul style="list-style-type: none">Body compositionDiet: Fat consumptionDiet: Fruit and vegetable intakeDiet: Fruit intakeDiet: Sugary drinks and snacksPhysical activity: GeneralPhysical activity: Moderate-to-vigorous intensityRisky behavior: Alcohol consumptionRisky behavior: SmokingScreen time: General	<ul style="list-style-type: none">Intervention: Lifestyle risk behaviour (at school)	L	L	L	L	L	L	L
Chan	2014	Include: Experimental; Quasi-experimental	None specified	2002–2012	School-age Children	<ul style="list-style-type: none">Numeracy: General	<ul style="list-style-type: none">Intervention: Dynamic geometry software	U	H	H	H	L	L	L
Chauhan	2017	Include: pre-post designs without control group	None specified	2001–2016	School-age Children (Primary, Elementary)	<ul style="list-style-type: none">Learning: General	<ul style="list-style-type: none">Screen use: General (in schools)	U	L	U	H	H	L	L
Chen	2020	Include: Experimental designs	None specified	2008–2019	All	<ul style="list-style-type: none">Learning: General	<ul style="list-style-type: none">Video games: Educational (with competition)	U	H	U	H	H	H	L
Cheung	2012	Include: Randomised controlled trials	None specified	1982–2010	School-age Children	<ul style="list-style-type: none">Literacy: Reading	<ul style="list-style-type: none">Intervention: Reading (in schools)	U	L	L	H	H	L	L
Cheung	2013	Include: Experimental; Quasi-experimental	None specified	1980–2010	School-age Children	<ul style="list-style-type: none">Numeracy: General	<ul style="list-style-type: none">Intervention: Mathematics (in schools)	L	H	H	U	L	L	L
Cho	2018	Include: experimental designs with control group	None specified	2008–2013	All	<ul style="list-style-type: none">Learning: Second language	<ul style="list-style-type: none">Screen use: General (mobile phone for language learning)	U	H	U	H	L	L	L
Claassen	2022	Include: Longitudinal; Retrospective	None specified	2004–2018	All	<ul style="list-style-type: none">Psychological health: ADHDPsychological health: ADHD SymptomsPsychological health: Inattention	<ul style="list-style-type: none">Screen use: General	U	L	U	H	L	H	L
Clinton	2019	Include: randomised experimental designs	Exclude: Disabilities	2011–2016	All	<ul style="list-style-type: none">Literacy: Reading performance	<ul style="list-style-type: none">Screen use: Reading (vs paper)	U	L	U	L	L	L	L
Comeras-Chueca	2021	Include: randomized and non-randomized controlled trials with no intervention or traditional exercise intervention)	Exclude: Disabilities, diseases or disorders, overweight or obese	2008–2019	All (4.5–11.6)	<ul style="list-style-type: none">Body composition: BMICardiometabolic health: Fitness	<ul style="list-style-type: none">Video games: Physically active	L	U	L	U	L	H	L
Comeras-Chueca	2021	Include: randomized and non-randomized controlled trials with control group with no intervention or traditional exercise intervention	Exclude: Overweight and obese only	2010–2020	All (8.0–14.0)	<ul style="list-style-type: none">Body composition: BMI z-scoreBody composition: Body fat percentageBody composition: Fat-free massBody composition: Waist circumference	<ul style="list-style-type: none">Video games: Physically active	L	L	L	U	L	H	L
Coyne	2018	None	None specified	1975–2017	Children; Adolescents	<ul style="list-style-type: none">Prosocial Behavior: General	<ul style="list-style-type: none">Screen use: Prosocial content	L	L	L	H	L	L	L
Cushing	2010	Include: All quantitative designs; Experimental	None specified	1999–2009	Children; Adolescents	<ul style="list-style-type: none">Healthy behavior: General	<ul style="list-style-type: none">Intervention: Health behaviours	U	L	H	H	L	L	L
Darling	2017	Include: Intervention	None specified	2006–2016	Children; Adolescents (8.7–16.0)	<ul style="list-style-type: none">Body compositionDiet: Healthy dietary behaviourPhysical activity: General	<ul style="list-style-type: none">Intervention: To promote health (via mobile phone)	U	L	U	U	L	H	H
de Oliveira	2016	Include: Observational	Include: Healthy populations only	2010–2014	Adolescents	<ul style="list-style-type: none">Cardiometabolic health: Metabolic Syndrome	<ul style="list-style-type: none">Screen use: General	L	L	L	L	L	L	L
Eirich	2022	Include: experimental or observational	Exclude: Non-typically developing children	1978–2021	Children (0.5–11.0)	<ul style="list-style-type: none">Psychological health: ExternalizingPsychological health: Internalizing	<ul style="list-style-type: none">Screen use: General	U	L	L	L	L	L	L
Fang	2019	Include: Cohort; Case-control; Cross-sectional	None specified	2006–2019	Children; Adolescents	<ul style="list-style-type: none">Body composition	<ul style="list-style-type: none">Computer use: GeneralScreen use: GeneralTV programs and movies: General	U	L	L	L	L	L	L
Feng	2021	Include: Quasi-experimental designs	Include: Healthy children	2017–2019	Early childhood; Pre-school	<ul style="list-style-type: none">Body composition: BMI z-score	<ul style="list-style-type: none">Screen use: General (meeting guidelines)	L	L	L	L	L	H	L
Ferguson	2017	None	None specified	2005–2017	Children; Adolescents	<ul style="list-style-type: none">Risky behavior: Sexual activityRisky behavior: Sexual activity (initiation of sex)	<ul style="list-style-type: none">Screen use: Sexual content	U	L	L	H	L	L	L
Ferguson	2020	Include: Experimental, correlational, or longitudinal	None specified	2009–2013	All (7.6–17.5)	<ul style="list-style-type: none">Aggression: General	<ul style="list-style-type: none">Video games: Violent content	L	U	L	L	L	L	L
Folkvord	2018	Include: Interventions	None specified	2007–2018	Children; Adolescents	<ul style="list-style-type: none">Diet: Food intake (calories)	<ul style="list-style-type: none">Advertising: Advertargames	U	L	L	U	L	H	L
Foreman	2021	Include: observational and intervention studies	None specified	2015–2020	All	<ul style="list-style-type: none">Eye health: Myopia	<ul style="list-style-type: none">Screen use: General (phone or tablet)	U	L	L	U	L	H	L
Furenes	2021	Include: experimental or experimental	Exclude: Cochlear implants or autism	2002–2019	Early childhood; Pre-school; School-age Children (Early Primary, Elementary)	<ul style="list-style-type: none">Literacy: Reading comprehensionLiteracy: Vocabulary learning	<ul style="list-style-type: none">e-Books: General	H	H	L	U	L	L	L
Gardella	2017	Include: Cross-sectional	None specified	2006–2014	Adolescents (12.5–16.2)	<ul style="list-style-type: none">Learning: Educational achievement problemsLearning: School attendance problems	<ul style="list-style-type: none">Internet use: Cyberbullying victimization	U	L	L	U	L	L	L
Garzón	2019	Include: Experimental with control group	None specified	NA	All	<ul style="list-style-type: none">Learning: General	<ul style="list-style-type: none">Intervention: Augmented reality (in schools)	U	H	U	H	H	L	L
Ghobadi	2018	Include: Cohort; Case-control; Cross-sectional; Interventions	None specified	2009–2014	Children; Adolescents	<ul style="list-style-type: none">Body composition	<ul style="list-style-type: none">TV programs and movies: Mealtime	U	L	L	U	L	L	L
Graham	2015	Include: Experimental; Quasi-experimental	None specified	2004–2011	School-age Children (Primary, Elementary, Middle School)	<ul style="list-style-type: none">Literacy: Writing	<ul style="list-style-type: none">Intervention: Writing feedback	U	L	H	L	L	L	L
Haghighi	2022	Include: observational designs	None specified	2008–2021	Adolescents	<ul style="list-style-type: none">Body composition: Overweight/obesity	<ul style="list-style-type: none">Screen use: General	L	H	U	U	L	L	L