			F	Review Char	acteristics				(	Quality	/ Asses	ssment	.1	
First Author	Year	Design Restrictions	Sample Restrictions	Year Range Earliest - Latest	Sample Age Restrictions (Age Range) <sup>2</sup>	5	Exposures Assessed		Lit. Sear			Studi Liste		ً Hete
Abrami	2020	Include: Experimental designs	None specified	2009– 2019	School-age Children (Early Primary, Elementary)	Literacy: Listening comprehension     Literacy: Phonoics     Literacy: Phonomic awareness     Literacy: Reading comprehension     Literacy: Reading fluency     Literacy: Vocabulary knowledge	Intervention: Literacy (Abracadabra; in schools)	U	U	L	Н	L	L	L
Adelantado- Renau	2019	Include: Cross- sectional studies	None specified	1982– 2019	Children; Adolescents (5.7-18.0)	Learning: General     Literacy: General     Numeracy: General	<ul> <li>Screen use: General</li> <li>TV programs and movies: General</li> <li>Video games: General</li> </ul>	L	L	L	L	L	L	L
Andrade	2019	Include: Interventions	Include: Overweight and obese	2010– 2017	Children; Adolescents	Healthy behavior: So efficacy     Psychological health Depression     Psychological health Enjoyment     Self-perceptions: General     Self-perceptions: Se esteem	n:  • Video games: Physically active	U	L	L	U	L	Н	L
Arztmann	2022	None specified	None specified	2008– 2020	School-age Children (Primary, Elementary, Middle School)	Learning: Behavior     Learning: Motivation	Video games:     Educational (with competition)	U	Н	Н	Н	Н	L	L
Aspiranti	2020	Include: Interventions	Include: Autism	2013- 2015	School-age Children (Primary, Elementary)	• Learning: General	<ul> <li>Intervention: Education (via touch screen)</li> </ul>	U	L	L	н	L	Н	L
Bartel	2015	None	Exclude: Atypical population (except for delayed sleep phase disorder or insomnia)	2004– 2014	Adolescents (12.2-17.7)	Sleep: Bedtime     Sleep: Duration     Sleep: Time to fall     asleep	Computer use:     General     Internet use: General     Screen use: General     (mobile phone)     TV programs and     movies: General     Video games: General	L	L	U	U	L	U	U
Beck Silva	2022	Include: Randomised controlled trials and quasi-RCTs.	Exclude: Any disease Mental disorders	1999– 2019	Adolescents	Diet: Fat consumption	Intervention: Nutrition (in schools)	L	L	L	L	L	Н	L
Benavides- Varela	2020	Include: Randomised controlled trials	Include: Math difficulties	2006– 2018	Children	<ul> <li>Numeracy: Mathematics</li> </ul>	<ul> <li>Intervention: Mathematics</li> </ul>	U	н	L	н	L	L	L
Blok	2002	None	Include: Regular students, poor readers or dyslexics Exclude: Severe or multiple disabilities	1990– 2000	All (5.4-11.5)	Literacy: Reading fluency	Intervention: Literacy	U	L	Н	Н	L	Н	L
Bossen	2020	Include: Randomised controlled trials	Include: Chronic disease	2011– 2018	Children (10.0-15.7)	Body composition     Cardiometabolic health: Fitness     Physical activity: General     Physical health: Muscular fitness	Video games: Health promoting content	U	L	L	L	L	Н	L

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Boyland	2016	Include: Experimental	None specified	2004– 2015	Children; Adolescents (6.0-10.4)	• Diet: Food intak	e	•	Advertising: Unhealthy food	Н	L	L	U	L	L	L
3yun	2018	Include: All quantitative designs	None specified	2006– 2014	School-age Children	Numeracy: General	eral	•	Video games: Numeracy	U	U	U	н	Н	Н	Н
Cao	2020	Include: designs with control groups	Exclude: Brain damage	2002– 2019	Children (3.4-14.3)	Cognition: Exect functioning Cognition: Exect Functioning (cot flexibility) Cognition: Exect Functioning (inhibition) Cognition: Exect Functioning (wo memory)	utive gnitive utive utive	٠	Computer use: Executive functioning training	U	Н	U	н	L	L	L
Champion	2019	Include: Randomised controlled trials	None specified	2003– 2017	School-age Children (11.4-15.9)	Body compositie     Diet: Fat consum     Diet: Fruit and     vegetable intake     Diet: Fruit intake     Diet: Sugary drii     and snacks     Physical activity     General     Physical activity     Moderate-to-vic     intensity     Risky behavior:     Alcohol consum     Risky behavior:     Smoking     Screen time: Ge	nption e e e hks : corous	•	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	Numeracy: Gene	eral	•	Intervention: Dynamic geometry software	U	н	н	Н	L	L	L
Chauhan	2017	Include: pre-post designs with or without control group	None specified	2001– 2016	School-age Children (Primary, Elementary)	• Learning: Gener	al	•	Screen use: General (in schools)	U	L	U	Н	Н	L	L
Chen	2020	Include: Experimental designs	None specified	2008– 2019	All	• Learning: Gener		•	Video games: Educational (with competition)	U	н	U	н	Н	Н	L
heung	2012	Include: Randomised controlled trials	None specified	1982- 2010	School-age Children	Literacy: Readin	g	•	Intervention: Reading (in schools)	U	L	L	Н	Н	L	L
Cheung	2013	Include: Experimental; Quasi- experimental	None specified	1980– 2010	School-age Children	Numeracy: General	eral	•	Intervention: Mathematics (in schools)	L	н	н	U	L	L	L
Cho	2018	Include: experiemental designs with control group	None specified	2008– 2013	All	Learning: Secon language	d	•	Screen use: General (mobile phone for language learning)	U	н	U	Н	L	L	L
Claussen	2022	Include: Longitudinal; Retrospective	None specified	2004– 2018	All	<ul> <li>Psychological he ADHD</li> <li>Psychological he ADHD Symptom (Inattention)</li> </ul>	ealth:	•	Screen use: General	U	L	U	Н	L	Н	L
Clinton	2019	Include: randomised experimental designs	Exclude: Disabilities	2011– 2016	All	Literacy: Readin performance	g		Screen use: Reading (vs paper)	U	н	U	U	L	L	L
Comeras- Chueca	2021	include: randomized and non-randomized controlled trials (control group with no intervention or traditional exercise intervention)	Exclude: Disabilities, diseases or disorders, overweight or obese	2008– 2019	All (4.5-11.6)	Body composition     BMI     Cardiometabolion     health: Fitness		•	Video games: Physically active	L	U	L	U	L	Н	L

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Hammersley	2016	Include: Randomised controlled trials	Exclude: Those with special needs, require a special diet, or have a condition that would limit physical activity	2003– 2013	Children; Adolescents	Body composition	•	Intervention: To promote healthy weight (obesity prevention)	L	L	н	L	L	Н	L
Graham	2015	Include: Experimental; Quasi- experimental	None specified	2004– 2011	School-age Children (Primary, Elementary, Middle School)	• Literacy: Writing	•	Intervention: Writing feedback	U	L	Н	Н	L	L	L
Garzón	2019	Include: Experimental with control group	None specified	NA	All	• Learning: General	•	Intervention: Augmented reality (in schools)	U	Н	U	н	Н	L	L
Gardella	2017	Include: Cross- sectional	None specified	2006– 2014	Adolescents (12.5-16.2)	<ul> <li>Learning: Educational achievement problems</li> <li>Learning: School attendance problems</li> </ul>	•	Internet use: Cyberbullying victimization	U	L	L	U	L	L	L
Furenes	2021	Include: experimental or quasi- experimental	Exclude: Cochlear implants or autism Autism	2002– 2019	Early childhood; Pre-school; School-age Children (Early Primary, Elementary)	<ul> <li>Literacy: Reading comprehension</li> <li>Literacy: Vocabulary learning</li> </ul>	•	e-Books: General	н	Н	L	U	L	L	L
Folkvord	2018	Include: Interventions	None specified	2007- 2018	Children; Adolescents	Diet: Food intake (calories)	•	Advertising: Advergames	U	L	L	U	L	Н	L
Ferguson	2020	Include: Experimental, correlational, or longitudinal	None specified	2009– 2013	All (7.8-17.5)	• Aggression: General		Video games: Violent content	L	U	L	L	L	L	L
Ferguson	2017	None	None specified	2005– 2017	Children; Adolescents	<ul> <li>Risky behavior: Sexual activity</li> <li>Risky behavior: Sexual activity (initiation of sex)</li> </ul>	•	Screen use: Sexual content	U	L	L	Н	L	L	L
Feng	2021	Include: Quantitative designs	Include: Healthy children	2017– 2019	Early childhood; Pre-school	Body composition: BMI z-score	•	Screen use: General (meeting guidelines)	L	L	L	L	L	Н	L
Eirich	2022	Include: experimental or observational	Exclude: Atypically developing	1978– 2021	Children (0.5-11.0)	<ul><li>Psychological health: Externalizing</li><li>Psychological health: Internalizing</li></ul>		Screen use: General	U	L	L	L	L	L	L
Darling	2017	Include: Intervention	None specified	2006– 2016	Children; Adolescents (8.7-16.0)	<ul> <li>Body composition</li> <li>Diet: Healthy dietary behaviour</li> <li>Physical activity: General</li> </ul>	•	Intervention: To promote health (via mobile phone)	U	L	U	U	L	Н	Н
Cushing	2010	Include: All quantitative designs; Experimental	None specified	1989– 2009	Children; Adolescents	<ul> <li>Healthy behavior: General</li> </ul>	•	Intervention: Health behaviours	U	L	Н	Н	L	L	L
Cunningham	2021	Include: Quantitative designs	None specified	2014– 2018	All (11.2-16.8)	<ul> <li>Psychological health: Depression</li> </ul>		Social Media: General (duration)	U	L	L	н	L	L	L
Coyne	2018	None	None specified	1975– 2017	Children; Adolescents	<ul> <li>Prosocial Behavior: General</li> </ul>	•	Screen use: Prosocial content	L	L	L	Н	L	L	L
Comeras- Chueca	2021	Include: randomized and non-randomized controlled with control group with no intervention or traditional exercise intervention	Include: Overweight and obese Exclude: Participants with disabilities, diseases or disorders other than obesity	2010– 2020	All (8.0-14.0)	<ul> <li>Body composition: BMI</li> <li>Body composition: BMI z-score</li> <li>Body composition: Body fat percentage</li> <li>Body composition: Fatfree mass</li> <li>Body composition: Waist circumference</li> </ul>		Video games: Physically active	L	L	L	U	L	н	L

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Hao	2021	Experimental with control group	Exclude: Disabilities	2012– 2018	School-age Children	•	Learning: Second language vocabulary	•	Intervention: English as foreign language	U	L	L	L	L	Н	L
Hassan- Saleh	2019	Include: Experimental; Quasi- experimental	None specified	2008– 2016	Children; Adolescents	•	Literacy: Pronunciation	•	Intervention: Pronunciation	U	L	U	U	Н	Н	L
He	2021	Include: Randomised controlled trials	None specified	2009– 2018	Children; Adolescents (9.9-16.6)	•	Physical activity: General	•	Intervention: To promote physical activity (via mobile phone)	L,	L,	L	L	L	L	L
Hernandez- Jimenez	2019	Include: Experimental; Quasi- experimental	None specified	2009– 2017	Children; Adolescents	•	Body composition		Video games: Physically active	U	L	Н	L	L	L	L
Hurwitz	2018	None	None specified	1997– 2018	Early childhood; Pre-school; School-age Children (Early Primary, Elementary)	•	Literacy: General	•	Intervention: Literacy videos	L	L	н	Н	L	L	L
vie	2020	Include: Correlational studies	None specified	2012– 2019	Adolescents (14.0-18.0)	•	Psychological health: Depression		Social Media: General	U	L	L	L	L	L	L
Janssen	2020	Include: Experimental; Cross-sectional; Longitudial	Include: Healthy children	2007– 2019	Children		Sleep: Duration	•	Screen use: General	U	L	L	L	L	U	L
Kates	2018	None	None specified	2008– 2016	School-age Children		Learning: General	•	Screen use: General (mobile phone)	U	Н	L	Н	Н	L	L
iim	2021	Include: experimental or quasi- experimental	None specified	2010– 2018	(Farly		Learning: Literacy and numeracy Literacy: General Numeracy: General	•	Screen use: Educational apps	U	L	U	L	L	L	Ĺ
Kroesbergen	2003	Include: Within subject design; between subject design	Include: Math difficulties	1985– 1999	School-age Children (Primary, Elementary) (7.0-11.3)		Numeracy: General	٠	Intervention: Mathematics (via computer in classrooms)	U	L	U	Н	L	Н	L
Kucukalkan	2019	Include: Experimental	Include: Dyscalculia	2007– 2016	School-age Children (Primary, Elementary)		Numeracy: General	•	Intervention: Mathematics	U	L	U	U	Н	L	L
i	2010	Include: Experimental; Quasi- experimental	None specified	1991– 2005	School-age Children		Numeracy: General	•	Intervention: Mathematics	U	L	L	U	L	Н	L
i	2022	Include: Randomised controlled trials	Include: Atypically developing	2012– 2020	Children; Adolescents		Developmental: Gross motor (locomotor) Developmental: Gross motor (non- locomotor) Developmental: Gross motor (object control skills)		Intervention: Active video games for motor skills	L	н	L	L	L	Н	L
Li	2022	Include: experimental or quasi- experimental	None specified	2014– 2021	All	•	Learning: Computational thinking	•	Computer use: Programming exercises	U	Н	L	н	L	L	L
Liao	2008	Include: All quantitative designs	None specified	1990– 2003	School-age Children (Primary, Elementary)	•	Learning: General	•	Intervention: Education (via computer)	L	Н	Н	L	Н	Н	Н
Liao	2014	Include: Randomised controlled trials	None specified	1999– 2012	Children; Adolescents (4.0-14.7)		Body composition	•	Intervention: Screentime reduction	U	L	Н	L	L	L	L
Liu	2019	Include: All quantitative designs	None specified	2007– 2014	All		Psychological health: Anxiety Psychological health: Depression		Social Media: Instant messaging Video games: General	U	L	U	Н	L	L	L

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						<ul> <li>Psychological health: Satisfaction</li> </ul>									
Liu	2022	Include: studies with control group	None specified	NA	All	Cognition: Creativity		Screen use: General	U	Н	U	Н	Н	L	
u	2021	Include: Cross- sectional only	Include: Healthy only	2014– 2018	Adolescents	<ul> <li>Psychological health: Negative coping style</li> <li>Psychological health: Positive coping style</li> </ul>	•	Screen use: General (mobile phone addiction)	U	L	U	L	L	L	
Madigan	2020	Include: Observational Exclude: Qualitative	Exclude: Asd or intellectual disability	1973– 2019	Children (0.5-10.6)	• Literacy: General	•	Intervention: Education (general) Screen use: General Screen use: General (coviewing) TV programs and movies: Coviewing TV programs and movies: Educational TV programs and movies: General TV programs and movies: General (in background)	U	L	L	U	L	L	
Major	2021	Include: Randomised controlled trials	None specified	2007– 2020	Children; Adolescents	• Learning: General	•	Intervention: Literacy (Abracadabra; in schools)	U	L	L	Н	L	L	
Mallawaarach	2022	Include: Cross- sectional or longitudinal	Include: Non- clinical	2014– 2020	Early childhood; Pre-school (1.4-5.4)	Cognition: Cognitive Functioning     Cognition: Executive functioning     Developmental: General     Developmental: Language or speech     Psychological health: Psychosocial factors     Psychological health: Self-regulation     Sleep: General	•	Screen use: General (mobile phone or tablet)	L	L	L	L	L	L	ı
⁄lares	2005	None	None specified	1969– 1989	Children	Aggression: Towards peers     Cognition: Reducing stereotypes     Prosocial Behavior: Altruism     Social interactions: General	•	TV programs and movies: General	U	L	Н	н	L	н	ı
Mares	2013	None	None specified	1973– 2010	Children	Cognition: Moral reasoning and perception of outgroups Learning: General Learning: Literacy and numeracy Learning: Physical and social environment		Intervention: Sesame Street	U	Н	Н	Н	L	н	
Marker	2022	None specified	None specified	2001–15	All (6.0-12.2)	Body composition		Video games: General	U	L	Н	L	L	L	
Marshall	2004	None	None specified	1985– 2002	Children; Adolescents	<ul><li>Body composition</li><li>Physical activity: General</li></ul>		TV programs and movies: General Video games: General	U	L	Н	Н	Н	н	
1artins	2019	Include: All quantitative designs	None specified	2003- 2018	All	Aggression: Towards peers		Screen use: General	U	L	U	Н	L	L	
lartins	2022	Include: Cross- over or parallel randomized controlled trials	None specified	2006– 2017	Children; Adolescents	Diet: Food intake (calories)		TV programs and movies: Mealtime	L	L	L	L	L	н	
Mazeas	2022	Include: Randomised controlled trials	Exclude: Contraindictions to physical activity	2015– 2019	All (10.3-17.8)	<ul> <li>Physical activity: General</li> </ul>		Intervention: To promote physical	L	L	L	L	L	L	

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			Intellectual and cognative impairments						activity (via gamification)							
McArthur	2012	Include: Randomised controlled trials and quasi-RCTs.	Include: Poor readers	1994– 2009	All (6.7-16.2)		Literacy: Phonics	•	Intervention: Literacy (phonics; via computer)	L	L	L	L	L	L	ı
McArthur	2018	Include: Randomised controlled trials and quasi-RCTs.	Include: Poor readers	1994– 2015	Children; Adolescents		Literacy: General		Intervention: Literacy	L	L	L	L	L	L	ı
Mei	2018	Include: cross- sectional, case- control, and cohort studies	None specified	2004– 2018	Adolescents (13.5-16.8)		Sleep: Duration Sleep: Problems Sleep: Time to fall asleep	•	Screen use: General (excessive)	U	н	U	L	L	н	
Merchant	2014	Include: Experimental with control group	None specified	NA	School-age Children	•	Learning: General		Screen use: Virtual reality simulations (Educational) Screen use: Virtual reality worlds (Educational) Video games: Virtual reality (Educational)	U	L	н	н	Н	Н	ı
Neitzel	2022	Include: random assignment or quasi- experimental	Include: Poor readers	2004– 2020	School-age Children (Primary, Elementary)		Literacy: Reading	•	Intervention: Reading (technology supported)	U	L	н	н	L	Н	ı
Oldrati	2020	Include: Group- control experimental design	Include: Both typically developing and atypically developing with neurodevelopmen disorder	2006– 2018	School-age Children		Cognition: Cognitive Functioning Cognition: Executive functioning Cognition: Verbal skills Cognition: Visuospatial skills Numeracy: General Psychological health: Adjustment	•	Intervention: Cognitive training	U	L	U	н	L	L	ı
Paik	1994	None	None specified	NA	Children; Adolescents		Antisocial Behaviour: General	•	TV programs and movies: Violent content	U	Н	U	Н	Н	L	
Pearce	2016	Include: All quantitative designs	None specified	1986– 2012	Children; Adolescents		Psychological health: Internalizing	•	TV programs and movies: Scary content	U	L	Н	Н	Н	L	
<del>'</del> eng	2011	None	Include: Healthy populations only	2001– 2010	Children; Adolescents		Cardiometabolic health: Maximum oxygen consumption Physical activity: Energy expenditure Physical activity: Heart rate	•	Video games: Physically active	U	L	U	U	L	н	
owers	2013	Include: Experimental or quasi- experimental designs	None specified	1985– 2012	All	•	Cognition: Information processing		Video games: General	U	L	U	Н	L	L	
Prescott	2018	Include: Longitudinal	None specified	2008– 2017	All (8.9-16.0)	•	Aggression: Towards peers	•	Video games: Violent content	U	L	U	Н	L	L	
Reynard	2022	None specified	Exclude: Neurological disorder	2016– 2020	Children; Adolescents		Psychological health: Emotion experience Psychological health: Emotion regulation		Intervention: To improve emotional regulation Intervention: To improve emotional regulation (via digital games)	Н	L	L	L	L	L	
Rodriguez- Rocha	2019	Include: Experimental; Quasi- experimental	None specified	1999– 2018	All (4.5-15.4)		Diet: Fruit and vegetable intake		Intervention: Fruit and vegetable	U	L	L	L	L	L	
Sadeghirad	2016	Include: Randomised controlled trials	None specified	1978– 2014	Children; Adolescents (3.8-11.0)		Diet: Food intake (calories)		Advertising: Unhealthy food	Н	L	L	L	L	L	

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							Diet: Food intake (grams) Diet: Unhealthy food choice									
Scherer	2020	Include: Experimental or quasi- experimental designs	Exclude: Clinical or special needs populations	1973– 2017	All (6.5-16.8)	•	Learning: Programming skills	•	Intervention: Education (programming)	U	н	U	н	L	L	L
Schroeder	2013	Include: Experimental; Quasi- experimental	None specified	2001– 2009	All	•	Learning: General	•	Intervention: With digital characters	L	L	U	н	L	L	L
Scionti	2019	Include: Interventions	None specified	2009– 2019	Children (4.3-6.1)	•	Cognition: Executive functioning		Intervention: Cognitive training	L	L	L	Н	L	L	L
Shin	2019	Include: Interventions	Include: No health conditions except obesity	2013– 2018	Children; Adolescents (12.0-15.7)		Body composition Diet: Sugary drinks Physical activity: General Screen time: General		Intervention: To promote health (via mobile phone app) Intervention: To promote health (via mobile phone) Intervention: To promote health (via text message)	U	L	L	L	L	Н	L
Shin	2022	Include: Quantitative designs	None specified	2003– 2021	Adolescents (10.4-18.0)		Psychological health: Depression		Internet use: General	L	Н	L	L	L	L	L
Slavin	2014	Include: Randomised controlled trials; Quasi- experimental; Observational	None specified	2000– 2011	School-age Children (Primary, Elementary)	•	Science: General	•	Intervention: Science (in schools)	U	н	Н	Н	L	Н	Н
Strouse	2021	Include: experimental and quasi- experimental designs	Include: No developmental delay	1994– 2019	Early childhood; Pre-school; School-age Children (Early Primary, Elementary) (0.8-6.5)		Learning: General	•	Screen use: Video (vs face-to-face)	U	L	U	Н	Н	L	L
Takacs	2014	Include: Experimental; Quasi- experimental	None specified	1980– 2014	All		Learning: General	•	e-Books: Narration	н	L	U	Н	L	L	L
Takacs	2019	Include: Randomised controlled trials and quasi-RCTs.	None specified	2001– 2016	Children		Cognition: Executive Functioning (accuracy) Cognition: Executive Functioning (cognitive flexibility) Cognition: Executive Functioning (inhibition) Cognition: Executive Functioning (working memory)	•	Intervention: Education (via computer)	L	L	U	н	L	L	L
Tekedere	2016	None	None specified	2010- 2015	All		Learning: General	•	Intervention: Augmented reality (in schools)	U	Н	U	U	L	L	L
Tokac	2019	Include: desgins with a control group	None specified	2006– 2016	School-age Children		Numeracy: Mathematics	•	Video games: Educational	U	Н	L	Н	L	L	L
Vahedi	2018	Include: Interventions (pre-post or controlled). Exclude: Cross- sectional	None specified	2015– 2016	School-age Children (Middle/High School)		Risky behavior: Media literacy Risky behavior: Risk taking (attitude)		Intervention: Media literacy (web-based)	L	L	U	U	L	L	L
van Ekris	2016	Include: Prospective design	None specified	2005– 2015	School-age Children (2.0-16.3)		Body composition		Computer use: General TV programs and movies: General	U	L	L	L	L	Н	L

<sup>1</sup> Items are from the National Health, Lung and Blood Institute's Quality Assessment of Systematic Reviews and Meta-Analyses tool. Note that we excluded the first item of the tool. U = Unclear; L = Low; H = High

<sup>&</sup>lt;sup>2</sup> Where provided

 $<sup>^{\</sup>rm 3}$  Eligibility criteria predefined and specified

<sup>&</sup>lt;sup>4</sup>Literature search strategy comprehensive and systematic

<sup>&</sup>lt;sup>5</sup> Dual independent screening & review

<sup>&</sup>lt;sup>6</sup> Dual independent quality assessment

<sup>&</sup>lt;sup>7</sup> Included studies listed with important characteristics and results of each

 $<sup>^{\</sup>it 8}$  Publication bias assessed

<sup>&</sup>lt;sup>9</sup> Heterogeneity assessed

Vannucci	2020	Exclude: Qualitative; Case studies	None specified	2011– 2018	Adolescents (12.6-18.0)	Risky behavior: Risk taking (general) Risky behavior: Risky sexual behaviour Risky behavior: Substance abuse		Social Media: General	U	L	U	Н	L	L	L
Williams	1982	None	None specified	1954– 1980	School-age Children (5.0-17.0)	Learning: General		TV programs and movies: General	U	U	Н	U	L	Н	Н
Wouters	2013	Include: experimental designs	Exclude: Disabilities	2005– 2012	All	Learning: Motivation	•	Video games: Educational	U	Н	U	Н	L	L	L
Wouters	2013	Include: Experimental with control group	None specified	1993– 2007	All	Learning: General	•	Video games: Educational (with instructional support)	U	Н	U	Н	L	L	L
Xie	2018	Include: Experimental; Quasi- experimental; Pre-test post- test	None specified	2010– 2018	Children (1.8-5.9)	Learning: General	•	Intervention: Education (via touch screen)	U	L	L	Н	L	L	L
Xie	2018	Include: experimental, quasi- experimental, or pre-post test	Exclude: Health conditions	2010- 2018	Early childhood; Pre-school (1.8-5.8)	Learning: General	•	Screen use: Touchscreens	U	L	U	Н	L	L	L
Yin	2019	None specified	None specified	2006– 2016	All	Psychological health: General Psychological health: Positive mental health		Social Media: General	U	н	U	Н	L	L	L
Zhou	2020	Exclude: Non- empirical studies; Qualitative; Systematic reviews or meta- analyses	None specified	2009– 2018	All	Healthy behavior: General Healthy behavior: Self- efficacy Psychological health: Enjoyment	•	Video games: Health promoting content	U	L	U	Н	L	L	L
Zucker	2009	Include: Randomised controlled trials; Quasi- experimental; Observational	None specified	1997– 2006	School-age Children (Primary, Elementary)	Literacy: Decoding Literacy: Reading comprehension	•	e-Books: General	L	L	U	н	L	н	L

<sup>†</sup> Items are from the National Health, Lung and Blood Institute's Quality Assessment of Systematic Reviews and Meta-Analyses tool. Note that we excluded the first item of the tool. U = Unclear; L = Low; H = High

 $<sup>^{2}</sup>$  Where provided

<sup>&</sup>lt;sup>3</sup> Eligibility criteria predefined and specified

 $<sup>^4\</sup>mathrm{Literature}$  search strategy comprehensive and systematic

<sup>&</sup>lt;sup>5</sup> Dual independent screening & review

 $<sup>^{6}\,\</sup>mathrm{Dual}$  independent quality assessment

<sup>&</sup>lt;sup>7</sup> Included studies listed with important characteristics and results of each

 $<sup>^{\</sup>it 8}$  Publication bias assessed

<sup>&</sup>lt;sup>9</sup>Heterogeneity assessed