Table of Contents

Supplementary File 1 - Search Strategy

Description: The search strategies used in each database

PubMed Search Strategy

((infant[MeSH Terms] OR child[MeSH Terms] OR minors[MeSH Terms] OR school age population[MeSH Terms] OR pediatrics[MeSH Terms] OR adolescen*[MeSH Terms]) **OR** (boy*[Title/Abstract] OR child*[Title/Abstract] OR girl*[Title/Abstract] OR kindergarten[Title/Abstract] OR paediatric[Title/Abstract] OR pediatric[Title/Abstract] OR infan* OR baby[Title/Abstract] OR babies[Title/Abstract] OR toddler*[Title/Abstract] OR "young child*"[Title/Abstract] OR "early childhood"[Title/Abstract] OR "early years"[Title/Abstract] OR pre-school*[Title/Abstract] OR preschool*[Title/Abstract] OR "pre school*"[Title/Abstract] OR "school age*"[Title/Abstract] OR school-age*[Title/Abstract] OR youth*[Title/Abstract] OR adolescen*[Title/Abstract] OR "young pe*"[Title/Abstract] OR teen*[Title/Abstract] OR preadolescen*[Title/Abstract])) **AND** ((television[MeSH Terms] OR computers[MeSH Terms] OR video games[MeSH Terms] OR sedentary lifestyle[MeSH Terms] OR smartphone[MeSH Terms] OR cell phones[MeSH Terms] OR computers, handheld[MeSH Terms]) **OR** (Television[Title/Abstract] OR TV[Title/Abstract] OR "Screen viewing"[Title/Abstract] OR "Screen time"[Title/Abstract] OR "Screen exposure"[Title/Abstract] OR Computer*[Title/Abstract] OR "Video gam*"[Title/Abstract] OR Sedentary[Title/Abstract] OR Inactivity[Title/Abstract] OR "E gam*"[Title/Abstract] OR e-gam*[Title/Abstract] OR Tablet*[Title/Abstract] OR "Cell phone*"[Title/Abstract] OR "Mobile Phone*"[Title/Abstract] OR "Mobile us*"[Title/Abstract] OR "Media time"[Title/Abstract] OR "Media us*"[Title/Abstract] OR "handheld device*"[Title/Abstract] OR "game device*"[Title/Abstract] OR "gaming device*"[Title/Abstract] OR "game console*"[Title/Abstract] OR "gaming console*"[Title/Abstract] OR "electronic media"[Title/Abstract] OR smartphone*[Title/Abstract] OR "smart phone*"[Title/Abstract])) **AND** ((Review[Title] OR meta-analysis[Title] OR meta-regression[Title] OR synthesis [Title] OR meta-synthesis[Title] OR "meta analysis"[Title] OR "meta regression"[Title] OR "meta synthesis"[Title]) **OR** (Review[Publication Type] OR Meta-Analysis[Publication Type]))

Version 1= Above
Version 2 = delete terms following final "AND", limit results "Review" after search

MEDLINE Search Strategy

(MH ("child" OR "minors" OR Infant OR "school age population" OR "pediatrics" OR "Adolescen*") **OR** TI (boy* OR girl* OR kindergarten OR paediatric OR pediatric OR infan* OR baby OR babies OR toddler* OR "young child*" OR child* OR "early childhood" OR "early years" OR pre-school* OR preschool* OR "pre school*" OR "school age*" OR school-age* OR adolescen* OR youth* OR "young pe*" OR teen* OR preadolescen*) **OR** AB (boy* OR girl* OR kindergarten OR paediatric OR pediatric OR infan* OR baby OR babies OR toddler* OR "young child*" OR child* OR "early childhood" OR "early years" OR pre-school* OR preschool* OR "pre school*" OR "school age*" OR school-age* OR adolescen* OR youth* OR "young pe*" OR teen* OR preadolescen*)) **AND** (MH ("television" OR "computers" OR "video games" OR "sedentary lifestyle" OR "smartphone" OR "cell phones" OR "computers, handheld") **OR** TI (Television OR TV OR "Screen viewing" OR Screen time OR Screen exposure OR Computer* OR Video gam* OR

Sedentary OR Inactivity OR “E gam*” OR e-gam* OR Tablet* OR “Cell phone*” OR “Mobile Phone*” OR “Mobile us*” OR “Media time” OR “Media us*” OR “handheld device*” OR “game device*” OR “gaming device*” OR “game console*” OR “gaming console*” OR “electronic media” OR smartphone* OR “smart phone*”) **OR** AB (Television OR TV OR “Screen viewing” OR Screen time OR Screen exposure OR Computer* OR Video gam* OR Sedentary OR Inactivity OR “E gam*” OR e-gam* OR Tablet* OR “Cell phone*” OR “Mobile Phone*” OR “Mobile us*” OR “Media time” OR “Media us*” OR “handheld device*” OR “game device*” OR “gaming device*” OR “game console*” OR “gaming console*” OR “electronic media” OR smartphone* OR “smart phone*”)**) AND (**TI (Review OR meta-analysis OR “meta analysis” OR meta-regression OR “meta regression” OR synthesis OR meta-synthesis OR “meta synthesis”))

Version 1 = above
Version 2 = delete terms following final “AND”. Restrict results to review articles.

CINAHL Search Strategy

((MH ("child" OR "Minors (Legal)" OR "pediatrics" OR “Infant”)) **OR** TI (“boy*” OR “child*” OR “girl*” OR “kindergarten” OR “paediatric” OR “pediatric” OR “infan*” OR “baby” OR “babies” OR “toddler*” OR "young child*" OR “early childhood” OR "early years" OR “pre-school*” OR “preschool*” OR “pre school*” OR “school age*” OR “school-age*” OR “adolescen*” OR “youth*” OR “young pe*” OR teen* OR “preadolescen*”) **OR** AB (“boy*” OR “child*” OR “girl*” OR “kindergarten” OR “paediatric” OR “pediatric” OR “infan*” OR “baby” OR “babies” OR “toddler*” OR "young child*" OR “early childhood” OR "early years" OR “pre-school*” OR “preschool*” OR “pre school*” OR “school age*” OR “school-age*” OR “adolescen*” OR “youth*” OR “young pe*” OR teen* OR “preadolescen*”)) **AND** (MH ("television" OR "computers" OR "video games" OR "lifestyle, sedentary " OR "smartphone" OR "cellular phone" OR "computers, hand-held") **OR** TI (“Television” OR “TV” OR “Screen viewing” OR “Screen time” OR “Screen exposure” OR “Computer*” OR “Video gam*” OR “Sedentary” OR “Inactivity” OR “E gam*” OR “e-gam*” OR “Tablet*” OR “Cell phone*” OR “Mobile Phone*” OR “Mobile us*” OR “Media time” OR “Media us*” OR “handheld device*” OR “game device*” OR “gaming device*” OR “game console*” OR “gaming console*” OR “electronic media” OR “smartphone*” OR “smart phone*”)
OR AB (“Television” OR “TV” OR “Screen viewing” OR “Screen time” OR “Screen exposure” OR “Computer*” OR “Video gam*” OR “Sedentary” OR “Inactivity” OR “E gam*” OR “e-gam*” OR “Tablet*” OR “Cell phone*” OR “Mobile Phone*” OR “Mobile us*” OR “Media time” OR “Media us*” OR “handheld device*” OR “game device*” OR “gaming device*” OR “game console*” OR “gaming console*” OR “electronic media” OR “smartphone*” OR “smart phone*”)) **AND** (TI(“Review” OR “meta-analysis” OR “meta analysis” OR “meta-regression” OR “meta regression” OR “synthesis” OR “meta-synthesis” OR “meta synthesis”))

PsycINFO Search Strategy

((MA("pediatrics")) **OR (**TI (boy* OR girl* OR kindergarten OR paediatric OR pediatric OR infan* OR baby OR babies OR toddler* OR "young child*" OR child* OR “early childhood” OR "early years" OR

pre-school* OR preschool* OR pre school* OR school age* OR school-age* OR adolescen* OR youth* OR young pe* OR teen* OR preadolescen*)) **OR (**AB (boy* OR girl* OR kindergarten OR paediatric OR pediatric OR infan* OR baby OR babies OR toddler* OR "young child*" OR child* OR “early childhood” OR "early years" OR pre-school* OR preschool* OR pre school* OR school age* OR school-age* OR adolescen* OR youth* OR young pe* OR teen* OR preadolescen*)) **OR (**KW (boy* OR OR girl* OR kindergarten OR paediatric OR pediatric OR infan* OR baby OR babies OR toddler* OR "young child*" OR child* OR “early childhood” OR "early years" OR pre-school* OR preschool* OR pre school* OR school age* OR school-age* OR adolescen* OR youth* OR young pe* OR teen* OR preadolescen*))) **AND ((**MA("Television" OR "Television Viewing" OR "Screen Time" OR "Mobile Devices" OR "Sedentary behavior" OR "computers" OR "computer games" OR "cellular phones")) **OR (**TI(Television OR TV OR Screen viewing OR Screen time OR Screen exposure OR Computer* OR Video gam* OR Sedentary OR Inactivity OR E gam* OR e-gam* OR Tablet* OR Cell phone* OR Mobile Phone* OR Mobile us* OR Media time OR Media us* OR handheld device* OR game device* OR gaming device* OR game console* OR gaming console* OR electronic media OR smartphone* OR smart phone*)) **OR (**AB(Television OR TV OR Screen viewing OR Screen time OR Screen exposure OR Computer* OR Video gam* OR Sedentary OR Inactivity OR E gam* OR e-gam* OR Tablet* OR Cell phone* OR Mobile Phone* OR Mobile us* OR Media time OR Media us* OR handheld device* OR game device* OR gaming device* OR game console* OR gaming console* OR electronic media OR smartphone* OR smart phone*)) **OR (**KW(Television OR TV OR Screen viewing OR Screen time OR Screen exposure OR Computer* OR Video gam* OR Sedentary OR Inactivity OR E gam* OR e-gam* OR Tablet* OR Cell phone* OR Mobile Phone* OR Mobile us* OR Media time OR Media us* OR handheld device* OR game device* OR gaming device* OR game console* OR gaming console* OR electronic media OR smartphone* OR smart phone*))) **AND (**TI(Review OR systematic review OR meta-analysis OR meta-regression OR synthesis OR meta-synthesis OR “meta analysis” OR “meta regression” OR “meta synthesis”))

SPORTDiscus search strategy

((SU (“infant” OR "children" OR "school children" OR "pediatrics" OR “youth” OR “teenagers*”))**OR** (TI (boy* OR girl* OR kindergarten OR paediatric OR pediatric OR infan* OR baby OR babies OR toddler* OR "young child*" OR child* OR “early childhood” OR "early years" OR pre-school* OR preschool* OR pre school* OR school age* OR school-age* OR adolescen* OR youth* OR young pe* OR teen* OR preadolescen*)) **OR** (AB (boy* OR girl* OR kindergarten OR paediatric OR pediatric OR infan* OR baby OR babies OR toddler* OR "young child*" OR child* OR “early childhood” OR "early years" OR pre-school* OR preschool* OR pre school* OR school age* OR school-age* OR adolescen* OR youth* OR young pe* OR teen* OR preadolescen*)) **OR (**KW (boy* OR girl* OR kindergarten OR paediatric OR pediatric OR infan* OR baby OR babies OR toddler* OR "young child*" OR child* OR “early childhood” OR "early years" OR pre-school* OR preschool* OR pre school* OR school age* OR school-age* OR adolescen* OR youth* OR young pe* OR teen* OR preadolescen*))) **AND** ((SU (“Video games” OR “SEDENTARY behavior in children” OR “SEDENTARY lifestyles” OR “COMPUTER games”)) **OR** (TI (Television OR TV OR Screen viewing OR Screen time OR Screen exposure OR Computer* OR Video gam* OR Sedentary OR Inactivity OR E gam* OR e-gam* OR Tablet* OR Cell phone* OR Mobile Phone* OR Mobile us* OR Media time OR Media us* OR handheld device* OR game device* OR gaming device* OR

game console* OR gaming console* OR electronic media OR smartphone* OR smart phone*)) **OR (**AB (Television OR TV OR Screen viewing OR Screen time OR Screen exposure OR Computer* OR Video gam* OR Sedentary OR Inactivity OR E gam* OR e-gam* OR Tablet* OR Cell phone* OR Mobile Phone* OR Mobile us* OR Media time OR Media us* OR handheld device* OR game device* OR gaming device* OR game console* OR gaming console* OR electronic media OR smartphone* OR smart phone*)) **OR (**KW (Television OR TV OR Screen viewing OR Screen time OR Screen exposure OR Computer* OR Video gam* OR Sedentary OR Inactivity OR E gam* OR e-gam* OR Tablet* OR Cell phone* OR Mobile Phone* OR Mobile us* OR Media time OR Media us* OR handheld device* OR game device* OR gaming device* OR game console* OR gaming console* OR electronic media OR smartphone* OR smart phone*))) **AND** (TI(Review OR Systematic review OR meta-analysis OR meta-regression OR synthesis OR meta-synthesis OR meta analysis OR meta regression OR meta synthesis))

Education Source Search Strategy

((SU (Children OR Youth OR adolescence)) **OR** (TI (boy* OR child* OR girl* OR kindergarten OR paediatric OR pediatric OR infan* OR baby OR babies OR toddler* OR "young child*" OR child* OR “early childhood” OR "early years" OR pre-school* OR preschool* OR “pre school*” OR “school age*” OR “school-age*” OR adolescen* OR youth* OR “young pe*” OR teen* OR preadolescen*)) **OR** (AB (boy* OR child* OR girl* OR kindergarten OR paediatric OR pediatric OR infan* OR baby OR babies OR toddler* OR "young child*" OR child* OR “early childhood” OR "early years" OR pre-school* OR preschool* OR “pre school*” OR “school age*” OR “school-age*” OR adolescen* OR youth* OR “young pe*” OR teen* OR preadolescen*)) **OR** (KW (boy* OR child* OR girl* OR kindergarten OR paediatric OR pediatric OR infan* OR baby OR babies OR toddler* OR "young child*" OR child* OR “early childhood” OR "early years" OR pre-school* OR preschool* OR “pre school*” OR “school age*” OR “school-age*” OR adolescen* OR youth* OR “young pe*” OR teen* OR preadolescen*))) **AND** ((SU (computers OR video games)) **OR** (TI (Television OR TV OR “Screen viewing” OR “Screen time” OR “Screen exposure” OR Computer* OR “Video gam*” OR Sedentary OR Inactivity OR “E gam*” OR “e-gam*” OR Tablet* OR “Cell phone*” OR “Mobile Phone*” OR “Mobile us*” OR “Media time” OR “Media us*” OR “handheld device*” OR “game device*” OR “gaming device*” OR “game console*” OR “gaming console*” OR “electronic media” OR smartphone* OR “smart phone*”)) **OR** (AB (Television OR TV OR “Screen viewing” OR “Screen time” OR “Screen exposure” OR Computer* OR “Video gam*” OR Sedentary OR Inactivity OR “E gam*” OR “e-gam*” OR Tablet* OR “Cell phone*” OR “Mobile Phone*” OR “Mobile us*” OR “Media time” OR “Media us*” OR “handheld device*” OR “game device*” OR “gaming device*” OR “game console*” OR “gaming console*” OR “electronic media” OR smartphone* OR “smart phone*”)) **OR (**KW (Television OR TV OR “Screen viewing” OR “Screen time” OR “Screen exposure” OR Computer* OR “Video gam*” OR Sedentary OR Inactivity OR “E gam*” OR “e-gam*” OR Tablet* OR “Cell phone*” OR “Mobile Phone*” OR “Mobile us*” OR “Media time” OR “Media us*” OR “handheld device*” OR “game device*” OR “gaming device*” OR “game console*” OR “gaming console*” OR “electronic media” OR smartphone* OR “smart phone*”))) **AND** (TI(Review OR “meta-analysis” OR “meta analysis” OR “meta-regression” OR “meta regression” OR synthesis OR “meta-synthesis” OR “meta synthesis”))

Version 1= as above
Version 2 = delete terms following final “AND”, limit results “Review” after search

Embase Search Strategy

(child or pediatrics or adolescent or "minor (person)").sh. **OR** (boy* or girl* or kindergarten or paediatric or pediatric or infan* or baby or babies or toddler* or young child* or child or early childhood or early

years or pre-school* or preschool* or pre school* or school age* or school-age* or adolescen* or youth* or young pe* or teen* or preadolescen*).ti,ab,kw.

AND

(television or computer or video game or sedentary lifestyle or smartphone or mobile phone or television viewing).sh. **OR** (Television or TV or Screen viewing or Screen time or Screen exposure or Computer* or Video gam* or Sedentary or Inactivity or E gam* or e-gam* or Tablet* or Cell phone* or Mobile Phone* or Mobile us* or Media time or Media us* or handheld device* or game device* or gaming device* or game console* or gaming console* or electronic media or smartphone* or smart phone*).ti,ab,kw.

AND

(Review or meta?analysis or meta?regression or synthesis or meta?synthesis).ti. **OR** (review).pt.

Note: Run each block of searches separately and then combine with AND afterwards. A single, combined search generates an error message.

Cochrane Search Strategy

((minor* OR "school age population" OR boy* OR child* OR girl* OR kindergarten OR paediatric OR pediatric OR infan* OR baby OR babies OR "young child*" OR "early childhood" OR "early years" OR pre-school* OR preschool* OR pre school* OR school age* OR school-age* OR toddler* OR adolescen* OR youth* OR young pe* OR teen* OR preadolescen*):ti,ab,kw OR MESH(child OR minors OR school age population OR pediatrics OR adolescent)) **AND** ((television OR computers OR "video games" OR "sedentary lifestyle" OR smartphone OR "cell phones" OR TV OR "Screen viewing" OR "Screen time" OR "Screen exposure" OR Computer* OR "Video gam*" OR "Sedentary" OR Inactivity OR "E gam*" OR e-gam* OR Tablet* OR "Cell phone*" OR "Mobile Phone*" OR "Mobile us*" OR "Media time" OR "Media us*" OR "handheld device*" OR "game device*" OR "gaming device*" OR "game console*" OR "gaming console*" OR "electronic media" OR smartphone* OR "smart phone*"):ti,ab,kw **OR** MESH (television OR computers OR video games OR sedentary lifestyle OR smartphone OR cell phones OR computers, handheld)) **AND (**(Review OR "meta analysis" OR "meta regression" OR synthesis OR "meta synthesis"):ti)

Version 1: as above
Version 2: Delete terms after final 'AND' and restrict results to reviews using Cochrane's tagging of studies.

Scopus Search Strategy

Version 1:

(TITLE-ABS-KEY(minor* OR “school age population” OR boy* OR girl* OR kindergarten OR paediatric OR pediatric OR infan* OR baby OR babies OR toddler* OR "young child*" OR child* OR “early childhood” OR "early years" OR pre-school* OR preschool* OR pre school* OR school age* OR “school-age*” OR adolescen* OR youth* OR “young pe*” OR teen* OR preadolescen*)) **AND** (TITLE-ABS-KEY(television OR computers OR “video games” OR “sedentary lifestyle” OR smartphone OR “cell phones” OR TV OR “Screen viewing” OR “Screen time” OR “Screen exposure” OR Computer* OR “Video gam*” OR “Sedentary” OR Inactivity OR “E gam*” OR e-gam* OR Tablet* OR “Cell phone*” OR “Mobile Phone*” OR “Mobile us*” OR “Media time” OR “Media us*” OR “handheld device*” OR “game device*” OR “gaming device*” OR “game console*” OR “gaming console*” OR “electronic media” OR smartphone* OR “smart phone*”)) **AND (**TITLE(Review OR “meta analysis” OR “meta-analysis” OR “meta-regression” OR “meta regression” OR synthesis OR “meta synthesis” OR “meta-synthesis”))

Version 2:
(TITLE-ABS-KEY (minor* OR "school age population" OR boy* OR girl* OR kindergarten OR paediatric OR pediatric OR infan* OR baby OR babies OR toddler* OR "young child*" OR child* OR "early childhood" OR "early years" OR pre-school* OR preschool* OR pre AND school* OR school AND age* OR "school-age*" OR adolescen* OR youth* OR "young pe*" OR teen* OR preadolescen*)) AND (TITLE-ABS-KEY (television OR computers OR "video games" OR "sedentary lifestyle" OR smartphone OR "cell phones" OR tv OR "Screen viewing" OR "Screen time" OR "Screen exposure" OR computer* OR "Video gam*" OR "Sedentary" OR inactivity OR "E gam*" OR e-gam* OR tablet* OR "Cell phone*" OR "Mobile Phone*" OR "Mobile us*" OR "Media time" OR "Media us*" OR "handheld device*" OR "game device*" OR "gaming device*" OR "game console*" OR "gaming console*" OR "electronic media" OR smartphone* OR "smart phone*")) AND (LIMIT-TO (DOCTYPE , "re"))

Web of Science Search Strategy

(TS= ("boy*" OR "girl*" OR "kindergarten" OR "paediatric" OR "pediatric" OR "infan*" OR "baby" OR "babies" OR "toddler*" OR "young child*" OR "child*" OR "early childhood" OR "early years" OR "pre-school*" OR "preschool*" OR "pre school*" OR "school age*" OR "school-age*" OR "adolescen*" OR "youth*" OR "young pe*" OR "teen*" OR "pre#adolescen*")) **AND** (TS= ("Television" OR "TV" OR "Screen viewing" OR "Screen time" OR "Screen exposure" OR "Computer*" OR "Video gam*" OR "Sedentary" OR "Inactivity" OR "E gam*" OR "e-gam*" OR "Tablet*" OR "Cell phone*" OR "Mobile Phone*" OR "Mobile us*" OR "Media time" OR "Media us*" OR "handheld device*" OR "game device*" OR "gaming device*" OR "game console*" OR "gaming console*" OR "electronic media" OR "smartphone*" OR "smart phone*")) **AND** (TI= ("Review" OR "systematic review" OR "meta-analysis" OR "meta analysis" OR "meta-regression" OR "meta-regression" OR "synthesis" OR "meta-synthesis" OR "meta synthesis"))

ProQuest Social Science Premium Collection Search Strategy

((su(Children OR babies OR boys OR girls OR preschool children OR teenagers OR adolescents OR pediatrics)) **OR** (ab(boy* OR child* OR girl* OR kindergarten OR paediatric OR pediatric OR infan* OR baby OR babies OR toddler* OR young child* OR early childhood OR early years OR pre-school* OR preschool* OR school age* OR school-age* OR adolescen* OR youth* OR young pe* OR teen* OR pre-adolescen*)) **OR** (ti(boy* OR child* OR girl* OR kindergarten OR paediatric OR pediatric OR infan* OR baby OR babies OR toddler* OR young child* OR early childhood OR early years OR pre-school* OR preschool* OR school age* OR school-age* OR adolescen* OR youth* OR young pe* OR teen* OR pre-adolescen*))) **AND** ((SU(television OR computers OR video games OR mobile phone)) **OR** (ab(Television OR TV OR Screen viewing OR Screen time OR Screen exposure OR Computer* OR Video gam* OR Sedentary OR Inactivity OR E gam* OR e-gam* OR Tablet* OR Cell phone* OR Mobile Phone* OR Mobile us* OR Media time OR Media us* OR handheld device* OR game device* OR gaming device* OR game console* OR gaming console* OR electronic media OR smartphone* OR smart phone*)) **OR** (ti(Television OR TV OR Screen viewing OR Screen time OR Screen exposure OR Computer* OR Video gam* OR Sedentary OR Inactivity OR E gam* OR e-gam* OR Tablet* OR Cell phone* OR Mobile Phone* OR Mobile us* OR Media time OR Media us* OR handheld device* OR game device* OR gaming device* OR game console* OR gaming console* OR electronic media OR smartphone* OR smart phone*))) **AND** (TI(review OR meta-analysis OR meta-regression OR synthesis OR meta-synthesis OR meta analysis OR meta regression OR meta synthesis))

ERIC Search Strategy

((SU(child) OR SU(youth) OR SU(minor) OR SU(adolescent) OR SU(school) OR SU(pediatrics)) **OR** (AB,TI(minor*) OR AB,TI("school age population") OR AB,TI(boy*) OR AB,TI(child*) OR AB,TI(girl*) OR AB,TI(kindergarten) OR AB,TI(paediatric) OR AB,TI(pediatric) OR AB,TI(infan*) OR AB,TI(baby) OR AB,TI(babies) OR AB,TI(toddler*) OR AB,TI("young child*") OR AB,TI("early childhood") OR AB,TI("early years") OR AB,TI(pre-school*) OR AB,TI(preschool*) OR AB,TI("pre school*") OR AB,TI("school age*") OR AB,TI(school-age*) OR AB,TI(adolescen*) OR AB,TI(youth*) OR AB,TI("young pe*") OR AB,TI(teen*) OR AB,TI(preadolescen*))) **AND** ((SU(television) OR SU(computers) OR SU(video games) OR SU(sedentary lifestyle) OR SU(cell phone) OR SU(mobile phone)) **OR** (AB,TI(television) OR AB,TI(computers) OR AB,TI("video games") OR AB,TI("sedentary lifestyle") OR AB,TI(smartphone) OR AB,TI("cell phones") OR AB,TI(TV) OR AB,TI("Screen viewing") OR AB,TI("Screen time") OR AB,TI("Screen exposure") OR AB,TI(Computer*) OR AB,TI("Video gam*") OR AB,TI("Sedentary") OR AB,TI(Inactivity) OR AB,TI("E gam*") OR AB,TI(e-gam*) OR AB,TI(Tablet*) OR AB,TI("Cell phone*") OR AB,TI("Mobile Phone*") OR AB,TI("Mobile us*") OR AB,TI("Media time") OR AB,TI("Media us*") OR AB,TI("handheld device*") OR AB,TI("game device*") OR AB,TI("gaming device*") OR AB,TI("game console*") OR AB,TI("gaming console*") OR AB,TI("electronic media") OR AB,TI(smartphone*) OR AB,TI("smart phone*"))) **AND**

(TI(Review) OR TI(“meta analysis”) OR TI(“meta regression”) OR TI(synthesis) OR TI(“meta synthesis”) OR TI(“meta-analysis”) OR TI(“meta-regression”) OR TI(“meta-synthesis”))

Supplementary File 3 - Effect Size Codebook

Description: Generated codebook for the dataset.

Codebook for the Complete Effects Data

Autogenerated data summary from dataReporter

2023-06-19 10:25:27.562591

Data report overview

The dataset examined has the following dimensions:

Feature	Result
Number of observations	452
Number of variables	32

Variable list

author_year

First author and publication year of meta-analysis.

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	134
Mode	"Oh, 2022"

---

outcome_category

Category the outcome belongs to.

Feature	Result
Variable type	character
Number of missing obs.	1 (0.22 %)
Number of unique values	4
Mode	"education"

---

plain_language_outcome

Specific outcome for the effect.

Feature	Result
Variable type	character

Feature	Result
Number of missing obs.	0 (0 %)
Number of unique values	140
Mode	“Learning: General”

---

plain_language_exposure

Specific exposure for the effect.

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	93
Mode	“Screen use: General”

---

age_group

Broad age group of the participants, if specified.

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	4
Mode	“Mixed”

---

original_effect_size_metric

Type of effect size `original_effect_size` refers to.

Feature	Result
Variable type	character
Number of missing obs.	6 (1.33 %)
Number of unique values	7
Mode	“d”

---

original_effect_size

Effect size reported in the original meta-analysis.

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)

Feature	Result
Number of unique values	286
Median	0.22
1st and 3rd quartiles	0.01; 0.68
Min. and max.	-788.59; 1185

original_cilb

Lower bound for the 95% confidence interval of the reported effect size.

Feature	Result
Variable type	numeric
Number of missing obs.	19 (4.2 %)
Number of unique values	265
Median	0.06
1st and 3rd quartiles	-0.15; 0.35
Min. and max.	-2146.87; 303

original_ciub

Upper bound for the 95% confidence interval of the reported effect size.

Feature	Result
Variable type	numeric
Number of missing obs.	19 (4.2 %)
Number of unique values	290
Median	0.44
1st and 3rd quartiles	0.12; 1.2
Min. and max.	-5.68; 2068

original_k

Number of studies reported as contributing to the reported effect size.

Feature	Result
Variable type	numeric
Number of missing obs.	14 (3.1 %)
Number of unique values	52
Median	7
1st and 3rd quartiles	4; 12.75
Min. and max.	1; 274

original_n

Number of participants reported as contributing to the reported effect size.

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	422
Median	1857.5
1st and 3rd quartiles	643.75; 7388.5
Min. and max.	3; 527696

---

original_i2

Reported heterogeneity (as I-Squared) for the reported effect size.

Feature	Result
Variable type	numeric
Number of missing obs.	157 (34.73 %)
Number of unique values	198
Median	67.75
1st and 3rd quartiles	24.7; 82.9
Min. and max.	0; 99.8

---

converted_r

Effect size as converted to Pearson's r (where possible).

Feature	Result
Variable type	numeric
Number of missing obs.	197 (43.58 %)
Number of unique values	179
Median	0.1
1st and 3rd quartiles	-0.02; 0.2
Min. and max.	-0.26; 0.82

---

converted_cilb

Lower bound for the 95% confidence interval of the converted effect size.

Feature	Result
Variable type	numeric
Number of missing obs.	206 (45.58 %)
Number of unique values	181
Median	0.02
1st and 3rd quartiles	-0.11; 0.09

Feature	Result
Min. and max.	-0.54; 0.76

converted_ciub

Upper bound for the 95% confidence interval of the converted effect size.

Feature	Result
Variable type	numeric
Number of missing obs.	206 (45.58 %)
Number of unique values	196
Median	0.19
1st and 3rd quartiles	0.06; 0.3
Min. and max.	-0.2; 0.87

reanalysis_estimate

Effect size from the reanalysis of the study-level data (where possible).

Feature	Result
Variable type	numeric
Number of missing obs.	204 (45.13 %)
Number of unique values	244
Median	0.08
1st and 3rd quartiles	-0.04; 0.18
Min. and max.	-0.47; 0.61

reanalysis_cilb

Lower bound for the 95% confidence interval of the reanalysed effect size.

Feature	Result
Variable type	numeric
Number of missing obs.	204 (45.13 %)
Number of unique values	244
Median	-0.01
1st and 3rd quartiles	-0.16; 0.07
Min. and max.	-0.67; 0.45

reanalysis_ciub

Upper bound for the 95% confidence interval of the reanalysed effect size.

Feature	Result
Variable type	numeric
Number of missing obs.	204 (45.13 %)
Number of unique values	244
Median	0.16
1st and 3rd quartiles	0.05; 0.29
Min. and max.	-0.35; 0.79

---

reanalysis_cilb999

Lower bound for the 99.9% confidence interval of the reanalysed effect size.

Feature	Result
Variable type	numeric
Number of missing obs.	204 (45.13 %)
Number of unique values	244
Median	-0.1
1st and 3rd quartiles	-0.22; 0.02
Min. and max.	-1; 0.35

---

reanalysis_ciub999

Upper bound for the 99.9% confidence interval of the reanalysed effect size.

Feature	Result
Variable type	numeric
Number of missing obs.	204 (45.13 %)
Number of unique values	244
Median	0.22
1st and 3rd quartiles	0.1; 0.39
Min. and max.	-0.27; 1

---

reanalysis_k

Number of studies contributing to the reanalysed effect size.

Feature	Result
Variable type	integer
Number of missing obs.	204 (45.13 %)
Number of unique values	48
Median	7
1st and 3rd quartiles	4; 13

Feature	Result
Min. and max.	1; 122

reanalysis_n

Number of participants contributing to the reanalysed effect size.

Feature	Result
Variable type	numeric
Number of missing obs.	204 (45.13 %)
Number of unique values	234
Median	1842
1st and 3rd quartiles	690.25; 5658.75
Min. and max.	26; 527696

reanalysis_i2

Heterogeneity (as I-Squared) for the reanalysed effect size.

Feature	Result
Variable type	numeric
Number of missing obs.	204 (45.13 %)
Number of unique values	199
Median	74.4
1st and 3rd quartiles	27.49; 88.44
Min. and max.	0; 99.51

reanalysis_eggers_p

P-value for the Egger's test for publication bias.

Feature	Result
Variable type	numeric
Number of missing obs.	365 (80.75 %)
Number of unique values	86
Median	0.23
1st and 3rd quartiles	0.03; 0.5
Min. and max.	0; 0.98

reanalysis_eggers_cilb

Lower bound for the 95% confidence interval for the Egger's test for publication bias.

Feature	Result
Variable type	numeric
Number of missing obs.	365 (80.75 %)
Number of unique values	86
Median	-0.04
1st and 3rd quartiles	-0.19; 0.11
Min. and max.	-2.05; 0.65

---

reanalysis_eggers_ciub

Upper bound for the 95% confidence interval for the Egger's test for publication bias.

Feature	Result
Variable type	numeric
Number of missing obs.	365 (80.75 %)
Number of unique values	86
Median	0.29
1st and 3rd quartiles	0.11; 0.64
Min. and max.	-0.96; 1.56

---

reanalysis_tes_obser

Number of observed significant tests (from Test of Excess Significance).

Feature	Result
Variable type	integer
Number of missing obs.	204 (45.13 %)
Number of unique values	32
Median	3
1st and 3rd quartiles	1; 6
Min. and max.	0; 110

---

reanalysis_tes_expect

Number of expected significant tests (from Test of Excess Significance).

Feature	Result
Variable type	numeric
Number of missing obs.	204 (45.13 %)
Number of unique values	244
Median	3.21
1st and 3rd quartiles	1.63; 6.78

Feature	Result
Min. and max.	0.05; 108.26

---

reanalysis_tes_ratio

Ratio of observed to expected significant tests (from Test of Excess Significance).

Feature	Result
Variable type	numeric
Number of missing obs.	204 (45.13 %)
Number of unique values	219
Median	0.91
1st and 3rd quartiles	0.57; 1.09
Min. and max.	0; 2.9

---

reanalysis_tes_p

P-value for the Test of Excess Significance.

Feature	Result
Variable type	numeric
Number of missing obs.	204 (45.13 %)
Number of unique values	222
Median	0.8
1st and 3rd quartiles	0.58; 0.95
Min. and max.	0.01; 1

---

reanalysis_tes_power

Power for each of the tests (from the Test of Excess Significance).

Feature	Result
Variable type	character
Number of missing obs.	204 (45.13 %)
Number of unique values	244
Mode	"0.793; 0.52; 0.463"

---

reanalysis_tes_theta

Value of theta used to compute the tests (from the Test of Excess Significance).

Feature	Result
Variable type	numeric
Number of missing obs.	204 (45.13 %)
Number of unique values	244
Median	0.08
1st and 3rd quartiles	-0.04; 0.18
Min. and max.	-0.47; 0.61

Report generation information:

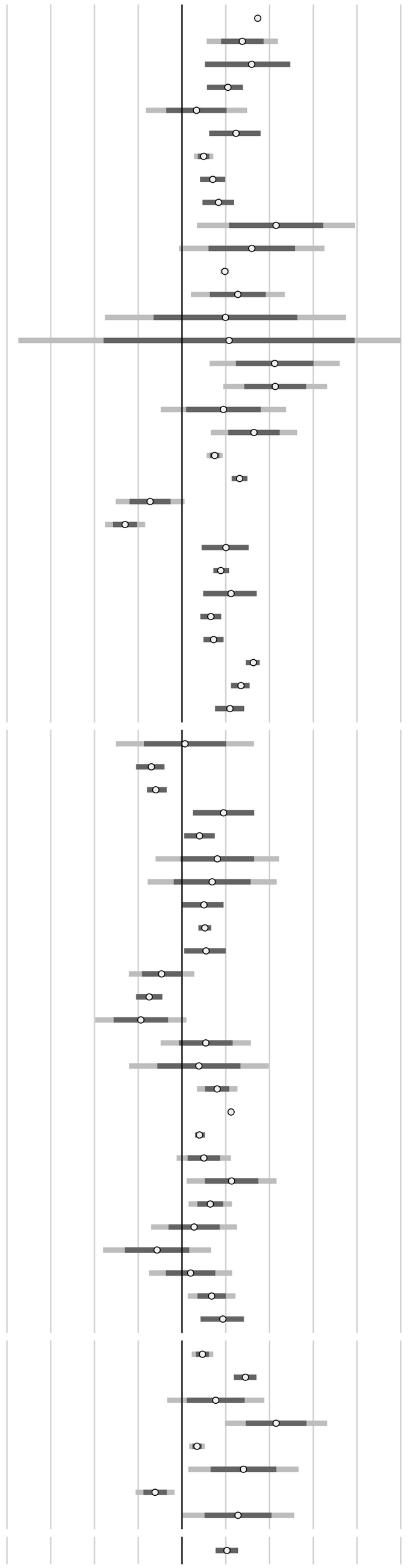
- Created by: Taren Sanders (username: `tasanders`).
- Report creation time: Mon Jun 19 2023 10:25:27
- Report was run from directory: `/Users/tasanders/GitHub/screen_umbrella`
- dataReporter v1.0.2 [Pkg: 2021-11-11 from CRAN (R 4.3.0)]
- R version 4.3.0 (2023-04-21).
- Platform: x86_64-apple-darwin20 (64-bit)(Australia/Sydney).
- Function call: `dataReporter::makeDataReport(data = out_effects, output = "pdf", mode = "summarize", smartNum = FALSE, file = "supplementary_files/codebook.Rmd", replace = TRUE, openResult = FALSE, checks = list(character = "showAllFactorLevels", factor = "showAllFactorLevels", labelled = "showAllFactorLevels", haven_labelled = "showAllFactorLevels", numeric = NULL, integer = NULL, logical = NULL, Date = NULL), listChecks = FALSE, maxProbVals = Inf, addSummaryTable = FALSE, codebook = TRUE, reportTitle = "Codebook for the Complete Effects Data")`

Supplementary File 6 - Education Outcomes

Description: Additional education outcomes which did not meet certainty criteria.

Associations Between Exposures and Education Outcomes

Outcome	Specific Outcome	Exposure	Age Group	Population	Study Design	Lead Author, Date	*r* with 95% CI	I^2	K	N	Indiv. Data	Eggers	Excess Signif.
Learning	General	Screen-based intervention: Education (via touch screen)	Children	Autism	Experimental	Aspiranti, 2020	0.35 [NA, NA]		3	33	✖	–	–
	General	Screen-based intervention: With digital characters	Children	General	Experimental	Schroeder, 2013	0.28 [0.18, 0.37]	0%	5	348	✔	✖	✔
	General	Video games: Educational (with competition)	Children	General	Experimental	Chen, 2020	0.32 [0.10, 0.50]		8	724	✖	–	–
	General	Video games: Educational (with competition)	Adolescents	General	Experimental	Chen, 2020	0.21 [0.11, 0.28]		8	740	✖	–	–
	General	Video games: Educational (with instructional support)	Adolescents	General	Experimental	Wouters, 2013	0.07 [-0.07, 0.20]	60%	13	471	✔	✔	✔
	General	Video games: Virtual reality (Educational)	Mixed	General	Experimental	Merchant, 2014	0.25 [0.12, 0.36]	90%	13	3,081	✖	–	–
	Literacy and numeracy	Screen use: Educational apps	Children	General	Experimental	Kim, 2021	0.10 [0.07, 0.13]	0%	36	5,447	✔	✖	✔
	Literacy and numeracy	Screen-based intervention: Sesame Street	Children	General	Mixed or unspecified	Mares, 2013	0.14 [0.08, 0.20]		15	7,604	✖	–	–
	Physical and social environment	Screen-based intervention: Sesame Street	Children	General	Mixed or unspecified	Mares, 2013	0.17 [0.09, 0.24]		13	7,797	✖	–	–
	Programming skills	Screen-based intervention: Education (programming)	Children	General	Experimental	Scherer, 2020	0.43 [0.21, 0.65]	86%	6	317	✔	✖	✔
	Programming skills	Screen-based intervention: Education (programming)	Adolescents	General	Experimental	Scherer, 2020	0.32 [0.12, 0.52]	88%	4	767	✔	✖	✔
	School attendance problems	Internet use: Cyberbullying victimization	Adolescents	General	Cross-sectional only	Gardella, 2017	0.20 [0.18, 0.21]	0%	9	25,242	✔	✖	✔
	Second language	Screen use: General (mobile phone for language learning)	Children	General	Experimental	Cho, 2018	0.26 [0.13, 0.38]	80%	7	1,192	✔	✖	✔
	Second language	Screen use: General (mobile phone for language learning)	Adolescents	General	Experimental	Cho, 2018	0.20 [-0.13, 0.53]	84%	3	201	✔	✖	✔
	Second language vocabulary	Screen-based intervention: English as foreign language	Children	General	Experimental	Hao, 2021	0.22 [-0.36, 0.79]	94%	3	147	✔	✖	✔
	Second language vocabulary	Screen-based intervention: English as foreign language	Adolescents	General	Experimental	Hao, 2021	0.42 [0.25, 0.60]	90%	12	569	✔	✖	✔
	Behavior	Video games: Educational (with competition)	Children	General	Mixed or unspecified	Arztmann, 2022	0.43 [0.28, 0.57]	70%	5	439	✔	✖	✔
	Computational thinking	Computer use: Programming exercises	Children	General	Experimental	Li, 2022	0.19 [0.02, 0.36]	78%	4	682	✔	✖	✔
	Computational thinking	Computer use: Programming exercises	Adolescents	General	Experimental	Li, 2022	0.33 [0.21, 0.45]	54%	8	493	✔	✖	✔
	Educational achievement problems	Internet use: Cyberbullying victimization	Adolescents	General	Cross-sectional only	Gardella, 2017	0.15 [0.13, 0.17]	0%	7	7,768	✔	✖	✔
	General	Screen use: General (in schools)	Children	General	Experimental	Chauhan, 2017	0.26 [0.23, 0.30]	86%	122	32,096	✖	–	–
	General	Screen use: General (mobile phone)	Mixed	General	Mixed or unspecified	Kates, 2018	-0.15 [-0.24, -0.05]	100%	8	179,186	✔	✖	✔
	General	Screen use: Video (vs face-to-face)	Young children	General	Experimental	Strouse, 2021	-0.26 [-0.32, -0.21]	76%	122	3,436	✔	✖	✔
	General	Screen use: Virtual reality simulations (Educational)	Mixed	General	Experimental	Merchant, 2014	0.20 [0.09, 0.30]	86%	29	2,553	✖	–	–
	General	Screen use: Virtual reality worlds (Educational)	Mixed	General	Experimental	Merchant, 2014	0.18 [0.14, 0.21]	78%	25	2,798	✖	–	–
	General	Screen-based intervention: Sesame Street	Children	General	Cross-sectional only	Mares, 2013	0.22 [0.10, 0.34]		3	615	✖	–	–
	General	Screen-based intervention: Sesame Street	Children	General	Longitudinal only	Mares, 2013	0.13 [0.08, 0.18]		21	9,981	✖	–	–
	General	Screen-based intervention: Sesame Street	Children	General	Mixed or unspecified	Mares, 2013	0.14 [0.10, 0.19]		24	10,596	✖	–	–
	General	Screen-based intervention: Augmented reality (in schools)	Children	General	Experimental	Garzón, 2019	0.33 [0.29, 0.36]	94%	19	1,207	✖	–	–
	General	Screen-based intervention: Augmented reality (in schools)	Adolescents	General	Experimental	Garzón, 2019	0.27 [0.22, 0.31]	96%	12	1,053	✖	–	–
	General	Screen-based intervention: Education (via computer)	Children	General	Mixed or unspecified	Liao, 2008	0.22 [0.15, 0.28]		48	5,121	✖	–	–
Literacy	Decoding	e-Books: General	Children	General	Mixed or unspecified	Zucker, 2009	0.01 [-0.17, 0.20]	0%	2	109	✔	✖	✔
	General	Screen use: General	Mixed	General	Cross-sectional only	Madigan, 2020	-0.14 [-0.21, -0.08]		24	8,868	✖	–	–
	General	Screen use: General	Mixed	General	Longitudinal only	Madigan, 2020	-0.12 [-0.16, -0.07]		14	9,450	✖	–	–
	General	Screen use: General (coviewing)	Mixed	General	Cross-sectional only	Madigan, 2020	0.19 [0.05, 0.33]		8	3,262	✖	–	–
	General	Screen use: General (coviewing)	Mixed	General	Longitudinal only	Madigan, 2020	0.08 [0.01, 0.15]		4	2,821	✖	–	–
	General	Screen-based intervention: Literacy	Mixed	Poor readers	Experimental	McArthur, 2018	0.16 [-0.01, 0.33]	54%	6	294	✔	✖	✔
	General	Screen-based intervention: Education (general)	Mixed	General	Cross-sectional only	Madigan, 2020	0.14 [-0.04, 0.31]	90%	7	1,228	✔	✖	✔
	General	Screen-based intervention: Education (general)	Mixed	General	Longitudinal only	Madigan, 2020	0.10 [0.00, 0.19]		6	727	✖	–	–
	General	Screen-based intervention: Literacy videos	Children	General	Mixed or unspecified	Hurwitz, 2018	0.10 [0.07, 0.13]	0%	45	24,624	✖	–	–
	General	TV programs and movies: Coviewing	Mixed	General	Observational - mixed	Madigan, 2020	0.11 [0.01, 0.20]		9	3,376	✖	–	–
	General	TV programs and movies: General	Mixed	General	Cross-sectional only	Adelantado-Renau, 2019	-0.09 [-0.18, 0.00]	96%	8	16,761	✔	✖	✔
	General	TV programs and movies: General	Mixed	General	Observational - mixed	Madigan, 2020	-0.15 [-0.21, -0.09]		26	12,337	✖	–	–
	General	TV programs and movies: General (in background)	Mixed	General	Observational - mixed	Madigan, 2020	-0.19 [-0.31, -0.06]	70%	5	2,792	✔	✖	✔
	Listening comprehension	Screen-based intervention: Literacy (Abracadabra; in schools)	Children	General	Experimental	Abrami, 2020	0.11 [-0.01, 0.23]	92%	8	3,715	✔	✖	✔
	Phonics	Screen-based intervention: Literacy (phonics; via computer)	Mixed	Poor readers	Experimental	McArthur, 2012	0.08 [-0.11, 0.27]	14%	4	124	✔	✖	✔
	Phonomic awareness	Screen-based intervention: Literacy (Abracadabra; in schools)	Children	General	Experimental	Abrami, 2020	0.16 [0.11, 0.22]	68%	10	5,124	✔	✖	✔
	Pronunciation	Screen-based intervention: Pronunciation	Mixed	General	Experimental	Hassan-Saleh, 2019	0.22 [NA, NA]	82%	6	302	✖	–	–
	Reading	Screen-based intervention: Reading (in schools)	Mixed	General	Experimental	Cheung, 2012	0.08 [0.06, 0.10]	78%	84	60,553	✖	–	–
	Reading comprehension	Screen-based intervention: Literacy (Abracadabra; in schools)	Children	General	Experimental	Abrami, 2020	0.10 [0.03, 0.17]	82%	9	5,773	✔	✖	✔
	Reading comprehension	e-Books: General	Children	General	Mixed or unspecified	Zucker, 2009	0.23 [0.10, 0.35]	44%	7	401	✔	✖	✔
	Reading fluency	Screen-based intervention: Literacy	Children	General	Mixed or unspecified	Blok, 2002	0.13 [0.07, 0.19]	58%	50	3,083	✔	✖	✔
	Reading fluency	Screen-based intervention: Literacy (Abracadabra; in schools)	Children	General	Experimental	Abrami, 2020	0.06 [-0.06, 0.17]	74%	5	1,745	✔	✖	✔
	Reading performance	Screen use: Reading (vs paper)	Mixed	General	Experimental	Clinton, 2019	-0.11 [-0.26, 0.03]	76%	9	760	✔	✖	✔
	Vocabulary knowledge	Screen-based intervention: Literacy (Abracadabra; in schools)	Children	General	Experimental	Abrami, 2020	0.04 [-0.07, 0.15]	94%	8	5,181	✔	✖	✔
	Vocabulary learning	e-Books: General	Young children	General	Experimental	Furenes, 2021	0.14 [0.07, 0.20]	0%	18	871	✔	✔	✔
	Writing	Screen-based intervention: Writing feedback	Children	General	Experimental	Graham, 2015	0.19 [0.08, 0.28]	0%	4	463	✖	–	–
Numeracy	General	Screen use: Educational apps	Children	General	Experimental	Kim, 2021	0.09 [0.06, 0.12]	0%	24	4,352	✔	✖	✔
	General	Screen-based intervention: Mathematics	Children	Dyscalculia	Experimental	Kucukalkan, 2019	0.29 [0.24, 0.34]	86%	31	2,290	✖	–	–
	General	Screen-based intervention: Cognitive training	Mixed	General	Experimental	Oldrati, 2020	0.15 [0.02, 0.29]	70%	11	693	✔	✔	✔
	General	Screen-based intervention: Dynamic geometry software	Mixed	General	Experimental	Chan, 2014	0.43 [0.29, 0.57]	92%	9	1,174	✔	✖	✔
	General	Screen-based intervention: Mathematics (in schools)	Mixed	General	Experimental	Cheung, 2013	0.07 [0.05, 0.09]	82%	73	56,891	✔	✖	✔
	General	Screen-based intervention: Mathematics (via computer in classrooms)	Children	Math difficulties	Experimental	Kroesbergen, 2003	0.28 [0.13, 0.43]	74%	11	848	✔	✔	✔
	General	TV programs and movies: General	Mixed	General	Cross-sectional only	Adelantado-Renau, 2019	-0.12 [-0.18, -0.07]	78%	7	14,115	✔	✖	✔
	Mathematics	Screen-based intervention: Mathematics	Children	Math difficulties	Experimental	Benavides-Varela, 2020	0.26 [0.10, 0.41]	84%	13	982	✔	✔	✔
Science	General	Screen-based intervention: Science (in schools)	Children	General	Mixed or unspecified	Slavin, 2014	0.21 [0.15, 0.26]		6	2,384	✖	–	–



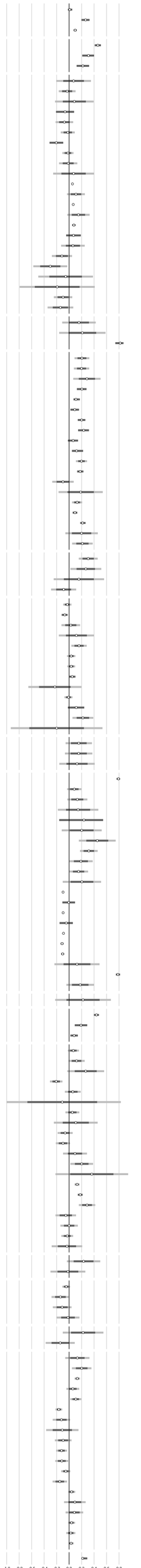
Note:
Indiv. Data: Individual study data available for reanalysis.
Eggers: *P* > 0.05 for Egger's test of asymmetry, or too few studies to analyse (K < 10).
Excess Signif.: *P* > 0.05 for test for excess significance.

Supplementary File 7 - Health-related Outcomes

Description: Additional health-related outcomes which did not meet certainty criteria.

Associations Between Exposures and Health-related Outcomes

Outcome	Specific Outcome	Exposure	Age Group	Population	Study Design	Lead Author, Date	*r* with 95% CI	I^2	K	N	Indiv. Data	Eggers	Excess Signif.
Aggression	Towards peers	Screen use: General	Mixed	General	Mixed or unspecified	Martins, 2019	0.01 [-0.02, 0.05]		3	707	✘	–	–
	Towards peers	TV programs and movies: General	Children	General	Mixed or unspecified	Mares, 2005	0.26 [0.20, 0.33]		15	747	✘	–	–
	Towards peers	Video games: Violent content	Children	General	Longitudinal only	Prescott, 2018	0.10 [0.07, 0.12]		7	3,583	✘	–	–
Antisocial Behaviour	General	TV programs and movies: Violent content	Young children	General	Mixed or unspecified	Paik, 1994	0.46 [0.41, 0.51]			1,117	✘	–	–
	General	TV programs and movies: Violent content	Children	General	Mixed or unspecified	Paik, 1994	0.31 [0.21, 0.40]			351	✘	–	–
	General	TV programs and movies: Violent content	Adolescents	General	Mixed or unspecified	Paik, 1994	0.22 [0.12, 0.32]			334	✘	–	–
Body composition	BMI z-score	Screen use: General (meeting guidelines)	Young children	General	Mixed or unspecified	Feng, 2021	0.07 [-0.09, 0.24]	86%	4	1,275	✔	✘	✔
	BMI z-score	Video games: Physically active	Mixed	Overweight and obese	Experimental	Comeras-Chueca, 2021	-0.03 [-0.11, 0.05]	0%	6	597	✔	✘	✔
	Body composition	Computer use: General	Mixed	General	Longitudinal only	van Ekris, 2016	0.08 [-0.10, 0.27]	98%	5	7,888	✔	✘	✔
	Body composition	Screen-based intervention: Lifestyle risk behaviour (at school)	Mixed	General	Experimental	Champion, 2019	-0.06 [-0.23, 0.08]	30%	5	3,480	✘	–	–
	Body composition	Screen-based intervention: Screentime reduction	Mixed	General	Experimental	Liao, 2014	-0.08 [-0.16, 0.01]	0%	5	541	✔	✘	✔
	Body composition	Screen-based intervention: To promote health (via mobile phone app)	Adolescents	General	Experimental	Shin, 2019	-0.02 [-0.09, 0.05]	0%	6	853	✔	✘	✔
	Body composition	Screen-based intervention: To promote health (via mobile phone)	Mixed	General	Experimental	Darling, 2017	-0.21 [-0.31, -0.09]		9	565	✘	–	–
	Body composition	Screen-based intervention: To promote health (via mobile phone)	Adolescents	General	Experimental	Shin, 2019	-0.02 [-0.07, 0.03]	0%	9	1,358	✔	✘	✔
	Body composition	Screen-based intervention: To promote health (via text message)	Adolescents	General	Experimental	Shin, 2019	-0.01 [-0.10, 0.07]	0%	3	505	✔	✘	✔
	Body composition	Screen-based intervention: To promote healthy weight (obesity prevention)	Mixed	General	Experimental	Hammersley, 2016	0.07 [-0.12, 0.27]	88%	4	1,102	✔	✘	✔
	Body composition	TV programs and movies: General	Mixed	General	Cross-sectional only	Marshall, 2004	0.05 [0.04, 0.06]		43	28,718	✘	–	–
	Body composition	TV programs and movies: General	Mixed	General	Longitudinal only	van Ekris, 2016	0.11 [0.02, 0.19]	98%	9	25,716	✔	✘	✔
	Body composition	TV programs and movies: General	Mixed	General	Mixed or unspecified	Marshall, 2004	0.07 [0.06, 0.08]	70%	52	44,707	✘	–	–
	Body composition	TV programs and movies: General	Young children	General	Mixed or unspecified	Marshall, 2004	0.15 [0.04, 0.26]	78%	4	2,047	✔	✘	✔
	Body composition	TV programs and movies: General	Children	General	Mixed or unspecified	Marshall, 2004	0.08 [0.05, 0.10]	0%	24	18,788	✘	–	–
	Body composition	Video games: General	Mixed	General	Mixed or unspecified	Marshall, 2004	0.07 [-0.05, 0.19]	74%	6	1,722	✘	–	–
	Body composition	Video games: General	Adolescents	General	Mixed or unspecified	Marker, 2022	0.06 [-0.05, 0.17]	96%	8	10,777	✔	✘	✔
	Body composition	Video games: Health promoting content	Children	Chronic disease	Experimental	Bossen, 2020	-0.12 [-0.21, -0.02]	0%	2	406	✔	✘	✔
	Body fat percentage	Video games: Physically active	Mixed	Overweight and obese	Experimental	Comeras-Chueca, 2021	-0.30 [-0.46, -0.14]	44%	3	408	✔	✘	✔
	Fat-free mass	Video games: Physically active	Mixed	Overweight and obese	Experimental	Comeras-Chueca, 2021	-0.06 [-0.32, 0.21]	76%	3	408	✔	✘	✔
	Waist circumference	Video games: Physically active	Mixed	Overweight and obese	Experimental	Comeras-Chueca, 2021	-0.19 [-0.55, 0.17]	90%	3	443	✔	✘	✔
	BMI	Video games: Physically active	Mixed	Overweight and obese	Experimental	Comeras-Chueca, 2021	-0.10 [-0.18, -0.01]	0%	4	488	✔	✘	✔
	BMI	Video games: Physically active	Children	General	Experimental	Comeras-Chueca, 2021	-0.14 [-0.26, -0.02]	62%	7	898	✔	✘	✔
Cardiometabolic health	Fitness	Video games: Health promoting content	Children	Chronic disease	Experimental	Bossen, 2020	0.16 [0.00, 0.32]	10%	2	161	✔	✘	✔
	Fitness	Video games: Physically active	Children	General	Experimental	Comeras-Chueca, 2021	0.21 [-0.01, 0.43]	90%	4	892	✔	✘	✔
	Maximum oxygen consumption	Video games: Physically active	Children	General	Mixed or unspecified	Peng, 2011	0.82 [0.74, 0.87]		9	172	✘	–	–
Cognition	Cognitive Functioning	Screen-based intervention: Cognitive training	Mixed	General	Experimental	Oldrati, 2020	0.21 [0.13, 0.28]	88%	68	3,540	✔	✘	✔
	Creativity	Screen use: General	Children	General	Experimental	Liu, 2022	0.20 [0.13, 0.27]	84%	60	3,648	✔	✘	✔
	Creativity	Screen use: General	Adolescents	General	Experimental	Liu, 2022	0.29 [0.15, 0.42]	98%	46	9,620	✔	✘	✔
	Executive Functioning (accuracy)	Screen-based intervention: Education (via computer)	Children	General	Experimental	Takacs, 2019	0.21 [0.12, 0.28]	58%	28	1,563	✘	–	–
	Executive Functioning (inhibition)	Computer use: Executive functioning training	Children	General	Experimental	Cao, 2020	0.11 [0.07, 0.17]	22%	22	1,512	✘	–	–
	Executive Functioning (inhibition)	Screen-based intervention: Education (via computer)	Children	General	Experimental	Takacs, 2019	0.09 [0.02, 0.16]		15	894	✘	–	–
	Executive Functioning (working memory)	– ater use: ive functioning training	Children	General	Experimental	Cao, 2020	0.20 [0.14, 0.26]	56%	28	2,170	✘	–	–
	Executive Functioning (working memory)	n-based intervention: tion (via computer)	Children	General	Experimental	Takacs, 2019	0.23 [0.14, 0.32]		21	1,220	✘	–	–
	Executive Functioning (cognitive flexibility)	Computer use: Executive functioning training	Children	General	Experimental	Cao, 2020	0.06 [-0.02, 0.14]	46%	12	1,015	✘	–	–
	Executive Functioning (cognitive flexibility)	Screen-based intervention: Education (via computer)	Children	General	Experimental	Takacs, 2019	0.12 [0.04, 0.22]		12	617	✘	–	–
	Executive functioning	Computer use: Executive functioning training	Children	General	Experimental	Cao, 2020	0.20 [0.15, 0.25]	54%	36	2,975	✔	✘	✔
	Executive functioning	Computer use: Executive functioning training	Children	General	Experimental	Cao, 2020	0.18 [0.13, 0.23]	48%	34	2,585	✘	–	–
	Executive functioning	Screen use: General (mobile phone or tablet)	Young children	General	Observational - mixed	Mallawaarachchi, 2022	-0.10 [-0.20, 0.00]	40%	5	610	✔	✘	✔
	Executive functioning	Screen-based intervention: Cognitive training	Mixed	General	Experimental	Oldrati, 2020	0.18 [-0.03, 0.40]	92%	13	571	✔	✘	✔
	Executive functioning	Screen-based intervention: Cognitive training	Young children	General	Experimental	Scionti, 2019	0.13 [0.08, 0.18]	38%	57	2,606	✔	✘	✔
	Moral reasoning and perception of out-groups	Screen-based intervention: Sesame Street	Children	General	Mixed or unspecified	Mares, 2013	0.09 [0.06, 0.13]		17	5,837	✘	–	–
	Reducing stereotypes	TV programs and movies: General	Children	General	Mixed or unspecified	Mares, 2005	0.22 [0.18, 0.26]		37	1,814	✘	–	–
	Verbal skills	Screen-based intervention: Cognitive training	Mixed	General	Experimental	Oldrati, 2020	0.20 [0.04, 0.35]	90%	19	948	✔	✘	✔
	Visuospatial skills	Screen-based intervention: Cognitive training	Mixed	General	Experimental	Oldrati, 2020	0.21 [0.11, 0.31]	52%	14	800	✔	✘	✔
Developmental	Gross motor (locomotor)	Screen-based intervention: Active video games for motor skills	Mixed	Atypically developing	Experimental	Li, 2022	0.31 [0.22, 0.40]	18%	14	472	✔	✘	✔
	Gross motor (non-locomotor)	Screen-based intervention: Active video games for motor skills	Mixed	Atypically developing	Experimental	Li, 2022	0.27 [0.12, 0.41]	82%	17	556	✔	✘	✔
	Gross motor (object control skills)	Screen-based intervention: Active video games for motor skills	Mixed	Atypically developing	Experimental	Li, 2022	0.16 [-0.08, 0.40]	74%	5	214	✔	✘	✔
	Language or speech	Screen use: General (mobile phone or tablet)	Young children	General	Observational - mixed	Mallawaarachchi, 2022	-0.09 [-0.21, 0.03]	82%	9	1,811	✔	✘	✔
Diet	Fat consumption	Screen-based intervention: Lifestyle risk behaviour (at school)	Mixed	General	Experimental	Champion, 2019	-0.03 [-0.07, 0.01]	46%	5	5,240	✔	✘	✔
	Fat consumption	Screen-based intervention: Nutrition (in schools)	Mixed	General	Experimental	Beck Silva, 2022	-0.07 [-0.12, -0.02]	0%	2	2,840	✘	–	–
	Food intake (calories)	TV programs and movies: Mealtime	Mixed	General	Experimental	Martins, 2022	0.03 [-0.06, 0.12]	0%	4	486	✔	✘	✔
	Fruit and vegetable intake	Screen-based intervention: Fruit and vegetable	Children	General	Experimental	Rodriguez-Rocha, 2019	0.12 [-0.05, 0.28]	82%	4	955	✔	✘	✔
	Fruit and vegetable intake	Screen-based intervention: Fruit and vegetable	Adolescents	General	Experimental	Rodriguez-Rocha, 2019	0.16 [0.09, 0.23]	56%	4	1,868	✔	✘	✔
	Fruit and vegetable intake	Screen-based intervention: Lifestyle risk behaviour (at school)	Mixed	General	Experimental	Champion, 2019	0.03 [-0.01, 0.07]	58%	6	6,034	✔	✘	✔
	Fruit intake	Screen-based intervention: Lifestyle risk behaviour (at school)	Mixed	General	Experimental	Champion, 2019	0.03 [0.00, 0.07]	0%	3	2,739	✔	✘	✔
	Healthy dietary behaviour	Screen-based intervention: To promote healthy eating (via mobile phone)	Mixed	General	Experimental	Darling, 2017	0.05 [0.00, 0.10]		8	1,886	✘	–	–
	Sugary drinks	Screen-based intervention: To promote health (via mobile phone)	Adolescents	General	Experimental	Shin, 2019	-0.23 [-0.48, 0.03]	92%	3	758	✔	✘	✔
	Sugary drinks and snacks	Screen-based intervention: Lifestyle risk behaviour (at school)	Mixed	General	Experimental	Champion, 2019	-0.01 [-0.05, 0.03]	54%	5	5,812	✔	✘	✔
	Unhealthy food choice	Advertising: Unhealthy food	Mixed	General	Experimental	Sadeghirad, 2016	0.11 [-0.02, 0.24]	88%	12	2,053	✘	–	–
	Unhealthy food choice	Advertising: Unhealthy food	Young children	General	Experimental	Sadeghirad, 2016	0.22 [0.12, 0.32]	48%	8	710	✔	✘	✔
	Unhealthy food choice	Advertising: Unhealthy food	Children	General	Experimental	Sadeghirad, 2016	-0.20 [-0.64, 0.24]	100%	4	2,298	✔	✘	✔
Healthy behavior	General	Video games: Health promoting content	Mixed	General	Mixed or unspecified	Zhou, 2020	0.15 [0.03, 0.28]	70%	7	913	✔	✘	✔
	Self-efficacy	Video games: Health promoting content	Mixed	General	Mixed or unspecified	Zhou, 2020	0.15 [0.02, 0.28]	38%	5	391	✔	✘	✔
	Self-efficacy	Video games: Physically active	Mixed	Overweight and obese	Experimental	Andrade, 2019	0.13 [-0.04, 0.30]	0%	3	133	✔	✘	✔
Physical activity	Energy expenditure	Video games: Physically active	Children	General	Mixed or unspecified	Peng, 2011	0.79 [0.76, 0.82]		11	203	✘	–	–
	General	Screen-based intervention: Lifestyle risk behaviour (at school)	Mixed	General	Experimental	Champion, 2019	0.08 [0.01, 0.15]	90%	12	10,408	✔	✘	✔
	General	Screen-based intervention: Lifestyle risk behaviour (at school)	Adolescents	General	Experimental	Champion, 2019	0.13 [0.04, 0.23]	92%	8	5,538	✔	✘	✔
	General	Screen-based intervention: To promote health (via mobile phone app)	Adolescents	General	Experimental	Shin, 2019	0.14 [-0.05, 0.34]	82%	5	826	✔	✘	✔
	General	Screen-based intervention: To promote health (via mobile phone)	Mixed	General	Experimental	Darling, 2017	0.24 [-0.16, 0.54]		4	346	✘	–	–
	General	Screen-based intervention: To promote health (via mobile phone)	Adolescents	General	Experimental	Shin, 2019	0.20 [0.01, 0.39]	86%	6	906	✔	✘	✔
	General	Screen-based intervention: To promote health (via text message)	Adolescents	General	Experimental	Shin, 2019	0.45 [0.28, 0.63]	0%	1	80	✔	✘	✔
	General	Screen-based intervention: To promote physical activity (via gamification)	Mixed	General	Experimental	Mazeas, 2022	0.32 [0.23, 0.40]	0%	3	438	✔	✘	✔
	General	Screen-based intervention: To promote physical activity (via mobile phone)	Mixed	General	Experimental	He, 2021	0.19 [0.08, 0.30]	72%	16	967	✔	✘	✔
	General	Screen-based intervention: To promote physical activity (via mobile phone)	Children	General	Experimental	He, 2021	0.15 [0.06, 0.24]	0%	7	439	✔	✘	✔
	General	Screen-based intervention: To promote physical activity (via mobile phone)	Adolescents	General	Experimental	He, 2021	0.21 [0.02, 0.39]	82%	9	528	✔	✘	✔
	General	TV programs and movies: General	Mixed	General	Cross-sectional only	Marshall, 2004	-0.10 [-0.11, -0.08]		35	139,047	✘	–	–
	General	TV programs and movies: General	Mixed	General	Longitudinal only	Marshall, 2004	-0.01 [-0.11, 0.10]		4	2,458	✘	–	–
	General	TV programs and movies: General	Mixed	General	Mixed or unspecified	Marshall, 2004	-0.10 [-0.11, -0.08]	74%	39	141,505	✘	–	–
	General	TV programs and movies: General	Young children	General	Mixed or unspecified	Marshall, 2004	-0.05 [-0.15, 0.06]	52%	3	631	✘	–	–
	General	TV programs and movies: General	Children	General	Mixed or unspecified	Marshall, 2004	-0.09 [-0.10, -0.08]	0%	9	84,347	✘	–	–
	General	TV programs and movies: General	Adolescents	General	Mixed or unspecified	Marshall, 2004	-0.11 [-0.14, -0.09]		16	14,630	✘	–	–
	General	Video games: General	Mixed	General	Mixed or unspecified	Marshall, 2004	-0.10 [-0.13, -0.08]	68%	10	119,942	✘	–	–
	General	Video games: Health promoting content	Children	Chronic disease	Experimental	Bossen, 2020	0.13 [0.09, 0.34]	90%	7	753	✔	✘	✔
	Heart rate	Video games: Physically active	Children	General	Mixed or unspecified	Peng, 2011	0.78 [0.75, 0.82]		8	165	✘	–	–
	Moderate-to-vigorous intensity	Screen-based intervention: Lifestyle risk behaviour (at school)	Mixed	General	Experimental	Champion, 2019	0.18 [0.05, 0.31]	36%	6	324	✔	✘	✔
Physical health	Muscular fitness	Video games: Health promoting content	Children	Chronic disease	Experimental	Bossen, 2020	0.22 [-0.04, 0.49]	68%	2	161	✔	✘	✔
Prosocial Behavior	Altruism	TV programs and movies: General	Children	General	Mixed or unspecified	Mares, 2005	0.44 [0.40, 0.48]		20	856	✘	–	–
	General	Screen use: Prosocial content	Children	General	Mixed or unspecified	Coyne, 2018	0.19 [0.09, 0.29]	82%	9	3,550	✘	–	–
	General	Screen use: Prosocial content	Adolescents	General	Mixed or unspecified	Coyne, 2018	0.08 [0.02, 0.14]	78%	10	5,883	✘	–	–
Psychological health	ADHD	Screen use: General	Mixed	General	Longitudinal only	Claussen, 2022	0.07 [0.01, 0.12]	92%	9	22,235	✔	✘	✔
	ADHD Symptoms (Inattention)	Screen use: General	Mixed	General	Longitudinal only	Claussen, 2022	0.12 [0.04, 0.20]	90%	4	6,395	✔	✘	✔
	Adjustment	Screen-based intervention: Cognitive training	Mixed	General	Experimental	Oldrati, 2020	0.27 [0.09, 0.44]	86%	11	528	✔	✘	✔
	Anxiety	Social Media: Instant messaging	Adolescents	General	Mixed or unspecified	Liu, 2019	-0.21 [-0.27, -0.15]	0%	2	984	✔	✘	✔
	Depression	Social Media: General (duration)	Mixed	General	Mixed or unspecified	Cunningham, 2021	0.06 [-0.02, 0.13]	92%	9	13,856	✔	✘	✔
	Depression	Social Media: Instant messaging	Adolescents	General	Mixed or unspecified	Liu, 2019	-0.11 [-0.67, 0.45]	98%	2	804	✔	✘	✔
	Depression	Video games: General	Adolescents	General	Mixed or unspecified	Liu, 2019	0.05 [-0.01, 0.12]	0%	2	869	✔	✘	✔
	Depression	Video games: Physically active	Mixed	Overweight and obese	Experimental	Andrade, 2019	0.11 [-0.10, 0.32]	0%	2	88	✔	✘	✔
	Emotion experience	Screen-based intervention: To improve emotional regulation	Children	General	Mixed or unspecified	Reynard, 2022	-0.06 [-0.14, 0.01]	42%	10	2,476	✔	✘	✔
	Emotion experience	Screen-based intervention: To improve emotional regulation (via digital games)	Children	General	Mixed or unspecified	Reynard, 2022	-0.10 [-0.17, -0.03]	0%	8	811	✔	✘	✔
	Emotion regulation	Screen-based intervention: To improve emotional regulation	Children	General	Mixed or unspecified	Reynard, 2022	0.09 [-0.02, 0.21]	54%	4	1,935	✔	✘	✔
	Enjoyment	Video games: Health promoting content	Mixed	General	Mixed or unspecified	Zhou, 2020	0.20 [0.09, 0.31]	0%	4	298	✔	✘	✔
	Enjoyment	Video games: Physically active	Mixed	Overweight and obese	Experimental	Andrade, 2019	0.36 [0.02, 0.71]	0%	2	26	✔	✘	✔
	Externalizing	Screen use: General	Mixed	General	Mixed or unspecified	Eirich, 2022	0.13 [0.10, 0.15]	94%	90	127,057	✔	✘	✔
	Internalizing	TV programs and movies: Scary content	Mixed	General	Mixed or unspecified	Pearce, 2016	0.18 [0.14, 0.22]	68%	31	12,454	✘	–	–
	Negative coping style	Screen use: General (mobile phone addiction)	Adolescents	General	Cross-sectional only	Lu, 2021	0.29 [0.21, 0.37]	70%	3	1,964	✔	✘	✔
	Positive coping style	Screen use: General (mobile phone addiction)	Adolescents	General	Cross-sectional only	Lu, 2021	-0.05 [-0.15, 0.04]	80%	4	2,280	✔	✘	✔
	Positive mental health	Social Media: General	Mixed	General	Mixed or unspecified	Yin, 2019	0.00 [-0.08, 0.08]	90%	7	6,617	✔	✘	✔
	Satisfaction	Social Media: Instant messaging	Adolescents	General	Mixed or unspecified	Liu, 2019	-0.03 [-0.09, 0.03]	0%	1	1,210	✔	✘	✔
	Self-regulation	Screen use: General (mobile phone or tablet)	Young children	General	Observational - mixed	Mallawaarachchi, 2022	-0.03 [-0.18, 0.11]	88%	5	1,848	✔	✘	✔
Risky behavior	Media literacy	Screen-based intervention: Media literacy (web-based)	Adolescents	General	Experimental	Vahedi, 2018	0.23 [0.07, 0.39]	0%	3	138	✔	✘	✔
	Risk taking (attitude)	Screen-based intervention: Media literacy (web-based)	Adolescents	General	Experimental	Vahedi, 2018	-0.02 [-0.19, 0.15]	0%	3	138	✔	✘	✔
Screen time	General	Screen-based intervention: Lifestyle risk behaviour (at school)	Mixed	General	Experimental	Champion, 2019	-0.05 [-0.08, -0.01]	38%	3	5,045	✔	✘	✔
	General	Screen-based intervention: To promote health (via mobile phone app)	Adolescents	General	Experimental	Shin, 2019	-0.14 [-0.22, -0.05]	22%	5	826	✔	✘	✔
	General	Screen-based intervention: To promote health (via mobile phone)	Adolescents	General	Experimental	Shin, 2019	-0.11 [-0.20, -0.02]	46%	6	1,148	✔	✘	✔
	General	Screen-based intervention: To promote health (via text message)	Adolescents	General	Experimental	Shin, 2019	-0.02 [-0.13, 0.09]	0%	1	322	✔	✘	✔
Self-perceptions	General	Video games: Physically active	Mixed	Overweight and obese	Experimental	Andrade, 2019	0.22 [0.03, 0.42]	0%	2	94	✔	✘	✔
	Self-esteem	Video games: Physically active	Mixed	Overweight and obese	Experimental	Andrade, 2019	-0.14 [-0.28, 0.00]	2%	4	192	✔	✘	✔
Sleep	Bedtime	Computer use: General	Adolescents	General	Mixed or unspecified	Bartel, 2015	0.13 [0.02, 0.25]	94%	2	5,063	✔	✘	✔
	Bedtime	Internet use: General	Adolescents	General	Mixed or unspecified	Bartel, 2015	0.20 [0.11, 0.29]	86%	4	3,867	✔	✘	✔
	Bedtime	Screen use: General (mobile phone)	Adolescents	General	Mixed or unspecified	Bartel, 2015	0.13 [0.11, 0.16]	0%	3	5,590	✔	✘	✔
	Bedtime	TV programs and movies: General	Adolescents	General	Mixed or unspecified	Bartel, 2015	0.06 [0.00, 0.12]	90%	8	11,712	✔	✘	✔
	Bedtime	Video games: General	Adolescents	General	Mixed or unspecified	Bartel, 2015	0.11 [0.05, 0.16]	68%	6	5,916	✔	✘	✔
	Duration	Computer use: General	Adolescents	General	Mixed or unspecified	Bartel, 2015	-0.16 [-0.20, -0.13]	40%	4	7,611	✔	✘	✔
	Duration	Internet use: General	Adolescents	General	Mixed or unspecified	Bartel, 2015	-0.12 [-0.21, -0.04]	92%	5	11,850	✔	✘	✔
	Duration	Screen use: General	Young children	General	Mixed or unspecified	Janssen, 2020	-0.11 [-0.26, 0.05]	94%	4	3,803	✔	✘	✔
	Duration	Screen use: General	Children	General	Mixed or unspecified	Janssen, 2020	-0.10 [-0.17, -0.02]	88%	7	6,184	✔	✘	✔
	Duration	Screen use: General (excessive)	Adolescents	General	Observational - mixed	Mei, 2018	-0.12 [-0.17, -0.07]	80%	8	7,634	✔	✘	✔
	Duration	Screen use: General (mobile phone)	Adolescents	General	Mixed or unspecified	Bartel, 2015	-0.12 [-0.18, -0.05]	94%	7	18,902	✔	✘	✔
	Duration	Video games: General	Adolescents	General	Mixed or unspecified	Bartel, 2015	-0.05 [-0.10, -0.01]	28%	8	3,321	✔	✘	✔
	General	Screen use: General (mobile phone or tablet)	Young children	General	Observational - mixed	Mallawaarachchi, 2022	-0.15 [-0.22, -0.08]	68%	4	4,181	✔	✘	✔
	Time to fall asleep	Computer use: General	Adolescents	General	Mixed or unspecified	Bartel, 2015	0.04 [0.01, 0.07]	0%	1	3,282	✔	✘	✔
	Time to fall asleep	Internet use: General	Adolescents	General	Mixed or unspecified	Bartel, 2015	0.09 [-0.01, 0.20]	72%	3	1,729	✔	✘	✔
	Time to fall asleep	Screen use: General (excessive)	Adolescents	General	Observational - mixed	Mei, 2018	0.08 [0.00, 0.17]	70%	3	1,836	✔	✘	✔
	Time to fall asleep	Screen use: General (mobile phone)	Adolescents	General	Mixed or unspecified	Bartel, 2015	0.04 [0.01, 0.07]	0%	2	3,432	✔	✘	✔
	Time to fall asleep	TV programs and movies: General	Adolescents	General	Mixed or unspecified	Bartel, 2015	0.03 [-0.02, 0.07]	42%	6	5,633	✔	✘	✔
	Time to fall asleep	Video games: General	Adolescents	General	Mixed or unspecified	Bartel, 2015	0.03 [0.01, 0.06]	0%	8	5,945	✔	✘	✔
Social interactions	General	TV programs and movies: General	Children	General	Mixed or unspecified	Mares, 2005	0.22 [0.21, 0.29]		36	2,056	✘	–	–



Note:
Indiv. Data: Individual study data available for reanalysis.
Eggers: $P > 0.05$ for Eggers' - a test of asymmetry, or too few studies to analyse ($K < 10$).
Excess Signif.: $P > 0.05$ for test for excess significance.

Supplementary File 8 - Included Studies

Description: References for the included studies.

Included Studies

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Supplementary File 9 - Effect Characteristics

Description: Descriptive table for the included effects.

Effect Size Characteristics

Characteristics of included and excluded effect sizes

Variable	Effect Size Used	
	Not Used, N = 197[1]	**Used**, N = 255[1]
Review Year		
1982	0 (0%)	1 (0.4%)
1994	0 (0%)	3 (1.2%)
2002	0 (0%)	1 (0.4%)
2003	0 (0%)	1 (0.4%)
2004	4 (2.0%)	13 (5.1%)
2005	0 (0%)	4 (1.6%)
2008	0 (0%)	1 (0.4%)
2009	0 (0%)	2 (0.8%)
2010	0 (0%)	2 (0.8%)
2011	3 (1.5%)	3 (1.2%)
2012	1 (0.5%)	2 (0.8%)
2013	4 (2.0%)	12 (4.7%)
2014	1 (0.5%)	7 (2.7%)
2015	8 (4.1%)	16 (6.3%)
2016	16 (8.1%)	9 (3.5%)
2017	10 (5.1%)	8 (3.1%)
2018	6 (3.0%)	16 (6.3%)
2019	38 (19%)	50 (20%)
2020	25 (13%)	49 (19%)
2021	28 (14%)	24 (9.4%)
2022	53 (27%)	31 (12%)
Outcome Category		
Education	41 (21%)	89 (35%)
Health Behaviour	55 (28%)	64 (25%)
Physical Health	62 (31%)	32 (13%)
Psychology	39 (20%)	69 (27%)
(missing)	0	1
Broad Outcome		
Aggression	0 (0%)	4 (1.6%)
Antisocial Behaviour	0 (0%)	3 (1.2%)
Body composition	45 (23%)	26 (10%)
Cardiometabolic health	4 (2.0%)	3 (1.2%)
Cognition	10 (5.1%)	21 (8.2%)
Developmental	0 (0%)	5 (2.0%)
Diet	17 (8.6%)	15 (5.9%)
Eye health	10 (5.1%)	0 (0%)
Healthy behavior	1 (0.5%)	4 (1.6%)
Learning	29 (15%)	44 (17%)
Literacy	10 (5.1%)	33 (13%)
Numeracy	2 (1.0%)	11 (4.3%)
Physical activity	18 (9.1%)	21 (8.2%)
Physical health	3 (1.5%)	1 (0.4%)
Prosocial Behavior	0 (0%)	3 (1.2%)
Psychological health	23 (12%)	26 (10%)
Risky behavior	10 (5.1%)	7 (2.7%)
Science	0 (0%)	1 (0.4%)
Screen time	3 (1.5%)	4 (1.6%)
Self-perceptions	1 (0.5%)	2 (0.8%)
Sleep	11 (5.6%)	20 (7.8%)
Social interactions	0 (0%)	1 (0.4%)
Broad Exposure		
Advertising	14 (7.1%)	5 (2.0%)
Computer use	9 (4.6%)	11 (4.3%)
e-Books	0 (0%)	5 (2.0%)
Internet use	1 (0.5%)	7 (2.7%)
Screen use	77 (39%)	48 (19%)
Screen-based intervention	56 (28%)	92 (36%)
Social Media	6 (3.0%)	10 (3.9%)
TV advertising	1 (0.5%)	0 (0%)
TV programs and movies	10 (5.1%)	32 (13%)
Video games	23 (12%)	45 (18%)
Number of Contributing Studies	5 (3, 9)	9 (5, 16)
(missing)	9	3
Pooled Sample Size	1,884 (665, 8,487)	2,053 (744, 5,990)
Age Group		
Adolescents	21 (11%)	57 (22%)
Children	47 (24%)	76 (30%)
Mixed	114 (58%)	102 (40%)
Young children	15 (7.6%)	20 (7.8%)
Sample Type		
Atypically developing	1 (0.5%)	3 (1.2%)
Autism	6 (3.0%)	1 (0.4%)
Chronic disease	1 (0.5%)	4 (1.6%)
Dyscalculia	0 (0%)	1 (0.4%)
General	184 (93%)	231 (91%)
Math difficulties	1 (0.5%)	2 (0.8%)
Overweight and obese	4 (2.0%)	10 (3.9%)
Poor readers	0 (0%)	3 (1.2%)
Study Design		
Cross-sectional only	4 (2.0%)	16 (6.3%)
Experimental	108 (55%)	130 (51%)
Longitudinal only	8 (4.1%)	12 (4.7%)
Mixed or unspecified	48 (24%)	81 (32%)
Observational - mixed	29 (15%)	16 (6.3%)
Study-level Data Available	150 (76%)	188 (74%)
Meets Statistical Certainty Criteria		
Meets Criteria	8 (4.1%)	44 (17%)
Unclear	189 (96%)	211 (83%)

[1] n (%); Median (IQR)