Associations Between Exposures and Education Outcomes

| Outcome | Specific Outcome | Exposure | Age Group | Lead Author, Date | <i>r</i> with 95% CI | l ² | К | N | Indiv. Data | Eggers | Excess Signif. | | | |
|----------|----------------------------------|---|-------------|------------------------|----------------------|----------------|-----|---------|----------------|----------|-------------------|----------|------|--------------|
| | General | Screen use: General (mobile phone) | All | Kates, 2018 | -0.12 [-0.19, -0.05] | | 8 | 135,131 | × | _ | - | | | |
| | General | Screen-based intervention: Sesame Street | Children | Mares, 2013 | 0.14 [0.10, 0.19] | | 24 | 10,596 | × | - | - | | | - |
| Learning | Literacy and numeracy | Screen-based intervention: Sesame Street | Children | Mares, 2013 | 0.14 [0.08, 0.20] | | 15 | 7,604 | × | _ | - | | | >= |
| | Physical and social environment | Screen-based intervention: Sesame Street | Children | Mares, 2013 | 0.17 [0.09, 0.24] | | 13 | 7,797 | × | _ | _ | | _ | 0 |
| | Educational achievement problems | Internet use: Cyberbullying victimization | Adolescents | Gardella, 2017 | 0.15 [0.13, 0.17] | 0% | 7 | 7,768 | ~ | × | • | | | 0 |
| | School attendance problems | Internet use: Cyberbullying victimization | Adolescents | Gardella, 2017 | 0.20 [0.18, 0.21] | 0% | 9 | 25,242 | ~ | × | • | | | 0 |
| | General | Screen-based intervention: Education (via computer) | Children | Liao, 2008 | 0.22 [0.15, 0.29] | | 48 | 5,121 | × | _ | _ | | | -0- |
| | General | Screen-based intervention: With digital characters | Children | Schroeder, 2013 | 0.28 [0.18, 0.37] | 0% | 5 | 348 | ~ | × | • | | | |
| | | with digital characters | | | | | | | | | | | l | |
| | General | TV programs and movies: General | All | Adelantado-Renau, 2019 | -0.12 [-0.15, -0.09] | 54% | 8 | 16,761 | ~ | × | • | | OIII | |
| | General | Screen-based intervention: Education (general) | Children | Madigan, 2020 | 0.14 [-0.04, 0.31] | 90% | 7 | 1,228 | ~ | × | • | - | | |
| | General | TV programs and movies: Coviewing | Children | Madigan, 2020 | 0.11 [0.01, 0.20] | | 9 | 3,376 | × | - | - | | - | - |
| | General | TV programs and movies: General | Children | Madigan, 2020 | -0.15 [-0.21, -0.09] | | 26 | 12,337 | × | - | - | • | • | |
| | General | TV programs and movies: General (in background) | Children | Madigan, 2020 | -0.19 [-0.31, -0.06] | 70% | 5 | 2,792 | ~ | × | • | • | _ | |
| Literacy | Pronunciation | Screen-based intervention: Pronunciation | All | Hassan Saleh, 2019 | 0.22 [NA, NA] | 82% | 6 | 302 | × | - | - | | | 0 |
| | General | Screen-based intervention: Literacy | All | McArthur, 2018 | 0.22 [0.11, 0.33] | 0% | 6 | 294 | ~ | × | • | | _ | • |
| | Phonics | Screen-based intervention: Literacy (phonics; via computer) | All | McArthur, 2012 | 0.15 [-0.02, 0.33] | 0% | 4 | 124 | ~ | × | • | | _ | • |
| | Decoding | e-Books: General | Children | Zucker, 2009 | 0.09 [-0.10, 0.28] | 0% | 2 | 109 | ~ | × | • | <u> </u> | | |
| | Reading comprehension | e-Books: General | Children | Zucker, 2009 | 0.23 [0.10, 0.35] | 44% | 7 | 401 | ~ | × | • | | _ | 0 |
| | Listening comprehension | Screen-based intervention: | Children | Abrami, 2015 | 0.09 [-0.06, 0.23] | 82% | 7 | 1,171 | × | _ | _ | | | |
| | Phonics | Literacy (Abracadabra; in schools) Screen-based intervention: | Children | Abrami, 2015 | 0.09 [0.04, 0.15] | 0% | 19 | 1,238 | × | _ | _ | | | |
| | Phonomic awareness | Literacy (Abracadabra; in schools) Screen-based intervention: | Children | Abrami, 2015 | 0.16 [0.11, 0.21] | 0% | 20 | 1,753 | • | _ | _ | | | 0 |
| | Reading comprehension | Literacy (Abracadabra; in schools) Screen-based intervention: | Children | Abrami, 2015 | 0.03 [-0.03, 0.09] | 0% | 6 | 1,045 | • | _ | _ | | | |
| | | Literacy (Abracadabra; in schools) Screen-based intervention: | | | | | | | x | - | _ | | | |
| | Reading fluency | Literacy (Abracadabra; in schools) Screen-based intervention: | Children | Abrami, 2015 | 0.04 [-0.06, 0.14] | 74% | 6 | 1,725 | × | - | - | | | |
| | Vocabulary knowledge | Literacy (Abracadabra; in schools) Screen-based intervention: | Children | Abrami, 2015 | 0.05 [-0.04, 0.14] | 50% | 15 | 1,167 | × | - | - | | | |
| | Writing | Writing feedback Screen-based intervention: | Children | Graham, 2015 | 0.19 [0.08, 0.28] | 0% | 4 | 463 | × | - | - | | _ | |
| | General | Literacy videos | Children | Hurwitz, 2018 | 0.10 [0.07, 0.13] | 0% | 783 | 24,624 | × | - | - | | IOI | |
| | Reading | Screen-based intervention: Reading (in schools) | All | Cheung, 2012 | 0.08 [0.06, 0.10] | 78% | 84 | 60,553 | × | - | - | | O | |
| | Reading fluency | Screen-based intervention: Literacy | All | Blok, 2002 | 0.13 [0.07, 0.18] | 62% | 50 | 1,121 | × | - | - | | -0 | - |
| | General | Screen-based intervention: Mathematics | Children | Küçükalkan, 2019 | 0.29 [0.24, 0.34] | 86% | 31 | 2,290 | × | _ | _ | | | |
| | General | TV programs and movies: General | All | Adelantado-Renau, 2019 | -0.12 [-0.18, -0.07] | 78% | 7 | 14,115 | ~ | × | • | | | |
| Numeracy | General | Screen-based intervention: | All | Oldrati, 2020 | 0.17 [0.04, 0.30] | 68% | 11 | 693 | | • | | | | |
| | | Cognitive training Screen-based intervention: | | | - | | | 848 | • | | • | | | |
| | General | Mathematics (via computer in classrooms) Screen-based intervention: | Children | Kroesbergen, 2003 | 0.29 [0.23, 0.36] | 7204 | 11 | | ~ | ✓ | • | | | |
| | General | Mathematics (in schools) Screen-based intervention: | All | Cheung, 2013 | 0.08 [0.06, 0.10] | 72% | 73 | 56,891 | ~ | × | ✓ | | 10 | |
| | General | Dynamic geometry software | All | Chan, 2014 | 0.43 [0.29, 0.57] | 92% | 9 | 1,174 | ~ | × | • | | | 0 |
| Science | General | Screen-based intervention: Science (in schools) | Children | Slavin, 2014 | 0.21 [0.15, 0.26] | | 6 | 2,384 | × | - | - | | | - |