U.S. Department of Education

Institute of Education Sciences

Research, Development, and Dissemination Performance Measures

Measure 2: The minimum number of IES-supported interventions with evidence of efficacy in improving student outcomes.

# Definition of Measure 2

Every year since 2002, IES has assessed the degree to which IES-supported interventions, including those developed or evaluated by IES, have generated evidence of efficacy in improving student outcomes. This measure supports the Department level goal of transforming education into an evidence-based field by raising the quality of research funded or conducted by the Department. In each year, the Department’s Congressional Justification reports the cumulative numbers of interventions since 2002 with evidence of meeting WWC standards and having positive effects on student outcomes as determined by the WWC reviewers.

This document includes the full list of the published studies that are part of the reported cumulative numbers.

# Interventions With Evidence of Efficacy in Improving Student Outcomes in Reading or Writing

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| **GPRA Review Year** | **Reviewed Paper** | **Intervention Name or Description of Instructional Approach** | **Grant Number** |
| 2023 | Li, L., Ringstaff, C., Tripathy, R. G., Flynn, K., & Thomas, L. (2019). [*Improving elementary school students' vocabulary skills and reading comprehension through a word learning strategies program*](https://eric.ed.gov/?id=ED604594). [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/89823)] | Word learning strategies (WLS) supplementary program | [R305A150108](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1657) |
| 2023 | Klingbeil, D. A., Moeyaert, M., Archer, C. T., Chimboza, T. M., & Zwolski Jr, S. A. (2017). [Efficacy of peer-mediated incremental rehearsal for English language learners](https://eric.ed.gov/?id=EJ1141162). *School Psychology Review, 46*(1), 122-140. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/89286)] | Peer-mediated incremental rehearsal | [R305D150007](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1647) |
| 2022 | Hall, C., Vaughn, S., Barnes, M. A., Stewart, A. A., Austin, C. R., & Roberts, G. (2019). [The effects of inference instruction on the reading comprehension of English learners with reading comprehension difficulties](https://eric.ed.gov/?id=EJ1266300). *Remedial and Special Education*, *41*(5), 259–270. [[WWC Review](https://ies.ed.gov/ncee/wwc/study/89462)] | Inference instruction | [R305F100013](https://ies.ed.gov/funding/grantsearch/details.asp?ID=992) |
| 2022 | Stevens, E. A., Vaughn, S., House, L., & Stillman-Spisak, S. (2020). [The effects of a paraphrasing and text structure intervention on the main idea generation and reading comprehension of students with reading disabilities in grades 4 and 5](https://eric.ed.gov/?id=EJ1266581). *Scientific Studies of Reading*, *24*(5), 365–379. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/89381)] | Paraphrasing and text structure instruction | [R305F100013](https://ies.ed.gov/funding/grantsearch/details.asp?ID=992); [R305A150407](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1707); 2P50HD05211711 |
| 2022 | Toste, J. R., Capin, P., Williams, K. J., Cho, E., & Vaughn, S. (2019). [Replication of an experimental study investigating the efficacy of a multisyllabic word reading intervention with and without motivational beliefs training for struggling readers](https://eric.ed.gov/?id=EJ1199704). *Journal of Learning Disabilities*, *52*(1), 45–58. [[WWC Review](https://ies.ed.gov/ncee/wwc/study/89568)] | Multisyllabic word reading (MWR) instruction | [R305F100013](https://ies.ed.gov/funding/grantsearch/details.asp?ID=992) |
| 2022 | Vadasy, P. F., Sanders, E. A., & Nelson, J. R. (2015). [Effectiveness of supplemental kindergarten vocabulary instruction for English learners: A randomized study of immediate and longer-term effects of two approaches](https://eric.ed.gov/?id=ED557796). *Journal of Research on Educational Effectiveness, 8*(4), 490-529. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/90039)] | Small-group supplemental vocabulary instruction for at-risk kindergarten English learners | [R305A130700](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1155) |
| 2021 | Borman, T. H., Borman, G. D., Houghton, S., Park, S. J., Zhu, B., Martin, A., & Wilkinson-Flicker, S. (2019). [Addressing literacy needs of struggling Spanish-speaking first graders: First-year results from a national randomized controlled trial of Descubriendo la Lectura](https://eric.ed.gov/?id=ED604084). *AERA Open, 5*(3), 1-14. [[WWC Review](https://ies.ed.gov/ncee/WWC/Study/89881)] | Literacy intervention: Descubriendo la Lectura | [R305A160060](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1888) |
| 2021 | Neuman, S. B., Samudra, P., & Wong, K. M. (2021). [Two may be better than one: Promoting incidental word learning through multiple media](https://eric.ed.gov/?id=ED612238). *Journal of Applied Developmental Psychology*, *73* (101252), 1-8. [[WWC Review](https://ies.ed.gov/ncee/WWC/Study/90345)]  | Two storybook presentation formats—traditional print books and video | [R305A150143](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1739) |
| 2019 | Tate, T. P., Collins, P., Xu, Y., Yau, J. C., Krishnan, J., Prado, Y., ... Warschauer, M. (2019)[. Visual-syntactic text format: Improving adolescent literacy](https://eric.ed.gov/?id=EJ1220260). *Scientific Studies of Reading, 23(4)*: 287-304. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/88755)] | Visual-syntactic formatted text | [R305A150429](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1667) |
| 2018 | Wood, C., Fitton, L., Petscher, Y., Rodriguez, E., Sunderman, G., & Lim, T. (2018). [The effect of e-Book vocabulary instruction on Spanish–English speaking children](https://eric.ed.gov/?id=EJ1187764). *Journal of Speech, Language, and Hearing Research*, *61*, 1–25. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/86137)] | BLOOM e-books | [R305A130460](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1388) |
| 2018 | Wijekumar, K., Meyer, B. J. F., & Lei, P. (2017). [Web-based text structure strategy instruction improves seventh graders’ content area reading comprehension](https://eric.ed.gov/?id=EJ1149967). *Journal of Educational Psychology*, *109*(6), 741–760. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/86126)] | Intelligent Tutoring System for the Text Structure Strategy (ITSS) |  [R305A080133](https://ies.ed.gov/funding/grantsearch/details.asp?ID=612) |
| 2018 | Wanzek, J., Vaughn, S., Kent, S. C., Swanson, E. A., Roberts, G., Haynes, . . . Solis, M. (2014[). The effects of team-based learning on social studies knowledge acquisition in high school](https://eric.ed.gov/?id=EJ1030365). *Journal of Research on Educational Effectiveness*, *7*(2), 183–204. [[WWC Review](http://ies.ed.gov/ncee/wwc/Study/86136%20%5D)] | Team-Based Learning (TBL) | [R305F100013](http://ies.ed.gov/funding/grantsearch/details.asp?ID=992) |
| 2018 | McKeown, M. G., Crosson, A. C., Moore, D. W., & Beck, I. L. (2018). [Word knowledge and comprehension effects of an academic vocabulary intervention for middle school students](https://eric.ed.gov/?id=EJ1180092). *American Educational Research Journal*, *55*(3), 572–616. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/86124)] | Robust Academic Vocabulary Encounters (RAVE) | [R305A100440](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1006) |
| 2018 | Johnson, L., Terry, N. P., Connor, C. M. D., & Thomas-Tate, S. (2017). [The effects of dialect awareness instruction on non-mainstream American English speakers](https://eric.ed.gov/?id=EJ1156747) [Study 1]. *Reading and Writing*, *30*(9), 2009–2038 [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/86127)] | Dialect Awareness (DAWS) | [R305F100027](https://ies.ed.gov/funding/grantsearch/details.asp?ID=988) |
| 2018 | Hock, M. F., Brasseur-Hock, I. F., Hock, A. J., & Duvel, B. (2017). [The effects of a comprehensive reading program on reading outcomes for middle school students with disabilities](https://eric.ed.gov/?id=EJ1129864). *Journal of Learning Disabilities*, *50*(2), 195–212. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/86116)] | Fusion Reading | [R305G040011](https://ies.ed.gov/funding/grantsearch/details.asp?ID=188) |
| 2017 | Kim, J.S., Hemphill, L., Troyer, M., Thomson, J.M., Jones, S.M., LaRusso, M.D. & Donovan, S. (2017). [Engaging Struggling Adolescent Readers to Improve Reading Skills.](https://eric.ed.gov/?id=EJ1146095) Reading Research Quarterly, 52(3), 357– 382. doi:10.1002/rrq.171 [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/85524)] | Strategic Adolescent Reading Intervention (STARI) | [R305F100026](https://ies.ed.gov/funding/grantsearch/details.asp?ID=990) |
| 2017 | Wood, C., Fitton, L., Petscher, Y., Rodriguez, E., Sunderman, G., & Lim, T. (2017). [The effect of ebook vocabulary instruction on Spanish-English speaking children*.*](https://eric.ed.gov/?id=EJ1187764) *Journal of Speech, Language, and Hearing Research*, 61(8), 1945-1969. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/86137)] | Bridging for Language Outcomes in the Classroom | [R305A130460](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1388) |
| 2016 | Wijekumar, K., Myer, B. J. F., & Lei, P. (2013). High-fidelity implementation of web-based intelligent tutoring system improves fourth and fifth graders content area reading comprehension. *Computers & Education, 68*, 366-379 [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/86253)] | ITSS (Intelligent Tutoring System) | [R305A080133](https://ies.ed.gov/funding/grantsearch/details.asp?ID=612) |
| 2016 | Vadasy, P. F., Sanders, E. A., & Logan Herrera, B. (2015[). Efficacy of rich vocabulary instruction in fourth- and fifth-grade classrooms.](https://eric.ed.gov/?id=EJ1068559) *Journal of Research on Educational Effectiveness, 8*(3), 325-365. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/85527)] | Rich Vocabulary Instruction (RVOC) | [R305A100568](http://ies.ed.gov/funding/grantsearch/details.asp?ID=1005) |
| 2016 | Steele, J. L., Slater, R. O., Zamarro, G., Miller, T., Li, J., Burkhauser, S. & Bacon, M. (2016). [Effects of dual-language immersion programs on student achievement: evidence from lottery data.](https://eric.ed.gov/?id=ED577026) *American Educational Research Journal, 20*(10), 1-25. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/85526)] | Dual Language Immersion | [R305E120003](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1294) |
| 2016 | Fogarty, M., Clemens, N., Simmons, D., Anderson, L., Davis, J., Smith, A., Wang, H., Kwok, O., Simmons, L. E., & Oslund, E. (2016). [Impact of a technology-mediated reading intervention on adolescents' reading comprehension](https://eric.ed.gov/?id=EJ1135807). *Journal of Research on Educational Effectiveness*, 1-28. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/85524)] | Comprehension Circuit Training (CCT) | [R305F100013](https://ies.ed.gov/funding/grantsearch/details.asp?ID=992) |
| 2015 | Vaughn, Sharon; Martinez, Leticia R.; Wanzek, Jeanne; Roberts, Greg; Swanson, Elizabeth; Fall, Anna-Mária (2017). [Improving content knowledge and comprehension for English language learners: Findings from a randomized control trial.](https://eric.ed.gov/?id=EJ1125544) *Journal of Educational Psychology,* *109*(1), 22-34. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/85559)] | Promoting Adolescents’ Comprehension of Text (PACT) | [R305F100013](https://ies.ed.gov/funding/grantsearch/details.asp?ID=992) |
| 2015 | Connor, C. M., Dombek, J., Crowe, E. C., Spencer, M., Tighe, E. L., Coffinger, S., Zargar, E., Wood, T., & Petscher, Y. (2017). [Acquiring science and social studies knowledge in kindergarten through fourth grade: Conceptualization, design, implementation, and efficacy testing of content-area literacy instruction (CALI).](https://eric.ed.gov/?id=EJ1136513) Journal of Educational Psychology, 109(3), 301–320. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/85545)] | Content-Area Literacy Instruction (CALI) | [R305F100027](https://ies.ed.gov/funding/grantsearch/details.asp?ID=988); [R305H040013](https://ies.ed.gov/funding/grantsearch/details.asp?ID=70); [R305B070074](https://ies.ed.gov/funding/grantsearch/details.asp?ID=515) |
| 2015 | Borman, G. D., Grigg, J., & Hanselman, P. (2015). [An effort to close achievement gaps at scale through self-affirmation](https://eric.ed.gov/?id=EJ1089929). *Educational Evaluation and Policy Analysis,* 1–22. | Self-Affirmation through Writing  | [R305A110136](http://ies.ed.gov/funding/grantsearch/details.asp?ID=1112); [R305C050055](http://ies.ed.gov/funding/grantsearch/details.asp?ID=147) |
| 2014 | Lesaux, N. K., Kieffer, M. J., Kelley, J. G., & Harris, J. R. (2014). [Effects of Academic Vocabulary Instruction for Linguistically Diverse Adolescents: Evidence From a Randomized Field Trial](https://eric.ed.gov/?id=EJ1045653). American Educational Research Journal, 51(6), 1159–1194. [[WWC Review](http://ies.ed.gov/ncee/wwc/study/81858)] | Secondary Writing | [R305A080631](http://ies.ed.gov/funding/grantsearch/details.asp?ID=711) |
| 2014 | Vadasy, P. F., Sanders, E. A., & Herrera, B. L. (2014[). *Efficacy of rich vocabulary instruction in fourth and fifth grade classrooms*.](https://eric.ed.gov/?id=EJ1068559) Reviewed as an unpublished draft. Published in 2015 in: *Journal of Research on Educational Effectiveness*, 8(3): 325-365 [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/85527)] | Rich Vocabulary (RVOC) | [R305A100568](http://ies.ed.gov/funding/grantsearch/details.asp?ID=1005) |
| 2013 | Vernon-Feagans, L., Kainz, K., Hedrick, A., Ginsberg, M., & Amendum, S. (2013[). Live webcam coaching to help early elementary classroom teachers provide effective literacy instruction for struggling readers: The Targeted Reading Intervention](https://eric.ed.gov/?id=EJ1054424). *Journal of Educational Psychology, 105*(4), 1175-1187. [[WWC Review](http://ies.ed.gov/ncee/wwc/study/81447)] | Targeted Reading Intervention (TRI) | [R305A040056](http://ies.ed.gov/funding/grantsearch/details.asp?ID=131) |
| 2013 | O’Connor, E.E., Cappella, E., McCormick, M.P., & McClowry, S. (2014). [Enhancing the academic development of shy children: A test of the efficacy of INSIGHTS](https://eric.ed.gov/?id=EJ1142185). *School Psychology Review, 43*(3), 239-259 [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/81849)] | INSIGHTS | [R305A080512](https://ies.ed.gov/funding/grantsearch/details.asp?ID=648) |
| 2013 | Zvoch, K. & Stevens, J.J. (2013) [Summer school effects in a randomized field trial.](https://eric.ed.gov/?id=EJ1007876) *Early Childhood Research Quarterly,* *28*(1), 24-32. [[WWC Review](http://ies.ed.gov/ncee/wwc/study/73271)] | Summer School Literacy Intervention | [R305A090369](https://ies.ed.gov/funding/grantsearch/details.asp?ID=813) |
| 2012 | Wijekumar , K. K., Meyer, B.J.F., Lei, P. (2012). [Large-scale randomized controlled trial with 4th graders using intelligent tutoring of the structure strategy to improve nonfiction reading comprehension](https://eric.ed.gov/?id=EJ986753). *Education Technology Research and Development, 60*(6), 987-1013*.* [[WWC Review](http://ies.ed.gov/ncee/wwc/study/77453)] | Intelligent Tutoring for Structure Strategy (ITSS) | [R305A080133](http://ies.ed.gov/funding/grantsearch/details.asp?ID=612) |
| 2012 | Vaughn, S., Swanson, E. A., Roberts, G., Wanzek, J., Stillman-Spisak, S. J., Solis, M., & Simmons, Deborah (2013) [Improving reading comprehension and social studies knowledge in middle school.](https://eric.ed.gov/?id=EJ996121) *Reading Research Quarterly*, 48(1): [[WWC Review](http://ies.ed.gov/ncee/wwc/study/77772)] | Promoting Acceleration of Comprehension and Content Through Text (PACT) | [R305F100013](https://ies.ed.gov/funding/grantsearch/details.asp?ID=992) |
| 2012 | Hooper, S.R., Costa, L.C., McBee, M., Anderson, K.L., Yerby, D. C., Childress, A., and Knuth, S.B. (2013). [A written language intervention for at-risk second grade students: A randomized controlled trial of the process assessment of the learner lesson plans in a tier 2 response-to-intervention (RTI) model.](https://eric.ed.gov/?id=EJ995670) *Annals of Dyslexia, 63*(1), 44-64. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/78537)] | Process Assessment of the Learner (PAL) | [R305H060042](https://ies.ed.gov/funding/grantsearch/details.asp?ID=52) |
| 2012 | Fehr, C. N., Davison, M. L., Graves, M. F., Sales, G. C., Seipel, B., & Sekhran-Sharma, S. (2012). [The effects of individualized, online vocabulary instruction on picture vocabulary scores: An efficacy study](https://eric.ed.gov/?id=EJ954162). *Computer Assisted Language Learning, 25*(1), 87-104. | Prototype of [*The First 4000 Words*](https://ies.ed.gov/funding/grantsearch/details.asp?ID=531) | [R305C050059](https://ies.ed.gov/funding/grantsearch/details.asp?ID=145) |
| 2011 | Gonzalez, J.G., Pollard-Durodola, S., Simmons, D.C., Taylor, A.B., Davis, M.J. et al. (2011). [Developing low-income preschoolers’ social studies and science vocabulary knowledge through content-focused shared book reading](https://eric.ed.gov/?id=EJ911536). *Journal of Research on Educational Effectiveness, 4*, 25-52. [[WWC Review](http://ies.ed.gov/ncee/wwc/study/79924)] | Shared Book Reading | [R305G050121](http://ies.ed.gov/funding/grantsearch/details.asp?ID=174) |
| 2010 | O'Connor, R. E., Swanson, H. S., & Geraghty, C. (2010). [Improvement in reading rate under independent and difficult text levels: Influences on word and comprehension skills.](https://eric.ed.gov/?id=EJ876298)  *Journal of Educational Psychology, 102* (1), 1-19. [[WCC Review](http://ies.ed.gov/ncee/wwc/study/82978)] | reading practice under different conditions | [R305G050122](http://ies.ed.gov/funding/grantsearch/details.asp?ID=176) |
| 2010 | Fien, H., Santoro, L., Baker, S., Chard, D., & Park, H. (2011). [Teacher read alouds enhanced with small group instruction: Closing the vocabulary and comprehension gap in first grade](https://eric.ed.gov/?id=ED512685). *School Psychology Review, 40*(2), 307-318. | Read Aloud Curriculum | [R305G050216](http://ies.ed.gov/funding/grantsearch/details.asp?ID=173) |
| 2010 | Denton, C. A., Kethley, C., Nimon, K., Kurz, T. B., Mathes, P.G., Shih, M., & Swanson, E.A. (2010[). Effectiveness of a supplemental early reading intervention scaled up in multiple schools](https://eric.ed.gov/?id=EJ891824). *Exceptional Children, 76*(4), 394-416. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/82916)] | Responsive Reading Instruction (RRI) | [R305W030257](http://ies.ed.gov/funding/grantsearch/details.asp?ID=360) |
| 2009 | Pasnak, R., Kidd, J. K., Gadzichowski, M. K., Gallington, D. A., Saracina, R. P. & Addison, K. T. (2009). [Promoting early abstraction to promote early literacy and numeracy](https://eric.ed.gov/?id=EJ836763). *Journal of Applied Developmental Psychology*, *30*(3), 239–249. | learning set approach | [R305B070542](http://ies.ed.gov/funding/grantsearch/details.asp?ID=475); [R305H030031](http://ies.ed.gov/funding/grantsearch/details.asp?ID=76) |
| 2008 | Williams, J., Nubla-Kung, A., Pollini, S., Stafford, B., Garcia, A., and Snyder, A. (2007). [Teaching cause–effect text structure through social studies content to at-risk second graders](https://eric.ed.gov/?id=EJ758037). *Journal of Learning Disabilities*, *40*(2), 111–120. [[WWC Review](http://ies.ed.gov/ncee/wwc/study/82953)] | cause-effect text structure | [R305G030283](http://ies.ed.gov/funding/grantsearch/details.asp?ID=197); [R324G060039](http://ies.ed.gov/funding/grantsearch/details.asp?ID=388) |
| 2008 | Vadasy, P. F., and Sanders, E. A. (2008[). Benefits of repeated reading intervention for low-achieving fourth- and fifth-grade students.](https://eric.ed.gov/?id=EJ802169) *Remedial and Special Education*, *29*(4), 235–249. | Quick Reads | [R305G040103](http://ies.ed.gov/funding/grantsearch/details.asp?ID=193) |
| 2008 | Vadasy, P. F., and Sanders, E. A. (2008). [Repeated reading intervention: Outcomes and interactions with readers skills and classroom instruction.](https://eric.ed.gov/?id=EJ796348) *Journal of Educational Psychology*, *100*(2), 272–290. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/82941)] | Quick Reads | [R305G040103](http://ies.ed.gov/funding/grantsearch/details.asp?ID=193) |
| 2008 | McNamara, D. S., O’Reilly, T. P., Best, R. M., and Ozuru, Y. (2006). [Improving adolescent students’ reading comprehension with iSTART.](https://eric.ed.gov/?id=EJ744665) *Journal of Educational Computing Research*, *34*(2), 147–171. | Interactive Strategy Trainer for Active Reading and Thinking (iSTART) | [R305G040046](http://ies.ed.gov/funding/grantsearch/details.asp?ID=189) |
| 2008 | Glenberg, A. M., Brown, M., and Levin, J. R. (2007). [Enhancing comprehension in small reading groups using a manipulation strategy](https://eric.ed.gov/?id=EJ768338). *Contemporary Educational Psychology, 32*, 389–399 | Manipulation Strategy | [R305H030266](http://ies.ed.gov/funding/grantsearch/details.asp?ID=81) |
| 2008 | Coyne, M. D., McCoach, D. B., and Kapp, S. (2007). [Vocabulary intervention for kindergarten students: Comparing extended instruction to embedded instruction and incidental exposure](https://eric.ed.gov/?id=EJ786232). *Learning Disability Quarterly*, *30*(2), 74–88. (Study 2) | Extended Vocabulary Instruction | [R305G030250](http://ies.ed.gov/funding/grantsearch/details.asp?ID=198) |
| 2008 | Coyne, M. D., McCoach, D. B., and Kapp, S. (2007). [Vocabulary intervention for kindergarten students: Comparing extended instruction to embedded instruction and incidental exposure](https://eric.ed.gov/?id=EJ786232). *Learning Disability Quarterly*, *30*(2), 74–88. (Study 1) | Extended Vocabulary Instruction | [R305G030250](http://ies.ed.gov/funding/grantsearch/details.asp?ID=198) |
| 2007 | Fountain, Cosgrove & Wood. ELLM evaluation. Evaluation described in [Preschool Curriculum Evaluation Research Consortium (2008). *Effects of Preschool Curriculum Programs on School Readiness* (NCER 2008–2009)](https://eric.ed.gov/?id=ED502153). U.S. Department of Education, National Center for Education Research. Washington, DC: U.S. Government Printing Office. | Early Literacy and Learning Model (ELLM) | [R305J020040](https://ies.ed.gov/funding/grantsearch/details.asp?ID=887) |
| 2007 | Chambers & Slavin, R. Curiosity Corner evaluation. Evaluation described in [Preschool Curriculum Evaluation Research Consortium (2008). *Effects of Preschool Curriculum Programs on School Readiness* (NCER 2008–2009)](https://eric.ed.gov/?id=ED502153). U.S. Department of Education, National Center for Education Research. Washington, DC: U.S. Government Printing Office. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/29247)] | Curiosity Corner | [R305J030138](https://ies.ed.gov/funding/grantsearch/details.asp?ID=881) |
| 2007 | Lonigan, C. & Schatschneider, C. Open Court evaluation. Evaluation described in [Preschool Curriculum Evaluation Research Consortium (2008). *Effects of Preschool Curriculum Programs on School Readiness* (NCER 2008–2009)](https://eric.ed.gov/?id=ED502153). U.S. Department of Education, National Center for Education Research. Washington, DC: U.S. Government Printing Office [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/72367)] | Open Court | [R305J030093](https://ies.ed.gov/funding/grantsearch/details.asp?ID=878) |
| 2007 | Wolfe, C. R., Britt, M. A., & Butler, J. A. (2009) [Argumentation Schema and the Myside Bias in Written Argumentation](https://eric.ed.gov/?id=EJ833731). *Written Communication*, *26*(2), 183-209. |  | [R305H050133](http://ies.ed.gov/funding/grantsearch/details.asp?ID=63); [R305H020039](http://ies.ed.gov/funding/grantsearch/details.asp?ID=86) |
| 2007 | O’Connor, R.E., White, A., & Swanson, H.L. (2007). [Repeated reading versus continuous reading: Influences on reading fluency and comprehension](https://eric.ed.gov/?id=EJ817519). *Exceptional Children, 74*(1), 31-46. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/78911)] | Repeated Reading/Continuous Reading | [R305G050122](http://ies.ed.gov/funding/grantsearch/details.asp?ID=176) |
| 2007 | Metcalfe, J., Kornell, N., & Son, Lisa K. (2007). A cognitive-science based program to enhance study efficacy in a high and low-risk setting. *European Journal of Cognitive Psychology, 19*(4), 743-768. | Dragon Master | [R305H030175](https://ies.ed.gov/funding/grantsearch/details.asp?ID=75) |

# Interventions With Evidence of Efficacy in Improving Student Outcomes in Mathematics or Science

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| **GPRA Review Year** | **Reviewed Paper** | **Intervention Name** | **Grant Number** |
| 2023 | Decker-Woodrow, L. E., Mason, C. A., Lee, J.-E., Chan, J. Y.-C., Sales, A., Liu, A., & Tu, S. (2023). [The impacts of three educational technologies on algebraic understanding in the context of COVID-19](https://eric.ed.gov/?q=ED627889&id=ED627889). *AERA Open, 9*(1), 1–17. [[WWC Review](https://ies.ed.gov/ncee/WWC/Study/91153)] | Three educational technologies: From Here to There, DragonBox 12+, and ASSISTments | [R305A180401](https://ies.ed.gov/funding/grantsearch/details.asp?ID=2175) |
| 2023 | Herrmann-Abell, C. F., Hardcastle, J., & Roseman, J. E. (2019). [*Evaluating a unit aimed at helping students understand matter and energy for growth and activity*](https://eric.ed.gov/?id=ED598354). [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/90482)] | High school biology unit, "matter and energy for growth and activity" | [R305A150310](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1650) |
| 2022 | Braithwaite, D. W., & Siegler, R. S. (2021). [Putting fractions together](https://eric.ed.gov/?q=ED612394&id=ED612394). *Journal of Educational Psychology*, *113*(3), 556–571. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/90628)] | Putting fractions together | [R305A150262](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1736); [R305A180514](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1736) |
| 2022 | Barbieri, C. A., Rodrigues, J., Dyson, N., & Jordan, N. C. (2020). [Improving fraction understanding in sixth graders with mathematics difficulties: Effects of a number line approach combined with cognitive learning strategies](https://eric.ed.gov/?id=ED595952). *Journal of Educational Psychology, 112*(3), 628. [[WWC Review](https://ies.ed.gov/ncee/wwc/study/88118)] | Number line | [R324A160127](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1824); [R305A100150](https://ies.ed.gov/funding/grantsearch/details.asp?ID=892) |
| 2022 | Jee, B. D., & Anggoro, F. K. (2019). [Relational scaffolding enhances children’s understanding of scientific models](https://eric.ed.gov/?id=ED596343). *Psychological Science, 30*(9), 1287-1302. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/89838)] | Relational scaffolding | [R305A150228](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1704) |
| 2022 | Jitendra, A. K., Harwell, M. R., Dupuis, D. N., Karl, S. R., Lein, A. E., Simonson, G., & Slater, S. C. (2015). [Effects of a research-based intervention to improve seventh-grade students’ proportional problem solving: A cluster randomized trial](https://eric.ed.gov/?id=ED572835)*. Journal of Educational Psychology, 107*(4), 1019-1034. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/89946)] | Schema-based instruction | [R305A110358](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1161) |
| 2021 | Fitzsimmons, C. J., Morehead, K., Thompson, C. A., Buerke, M., & Dunlosky, J. (2023). [Can feedback, correct, and incorrect worked examples improve numerical magnitude estimation precision?](https://eric.ed.gov/?id=EJ1374758) *The Journal of Experimental Education, 91*(1), 20-45. [[WWC Review](https://ies.ed.gov/ncee/WWC/Study/90348)] | Studying incorrect worked examples, studying correct worked examples, or receiving feedback | [R305A160295](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1821) |
| 2021 | Gray, A. M., Sirinides, P. M., Fink, R. E., & Bowden, A. B. (2021). [Integrating literacy and science instruction in Kindergarten: Results from the efficacy study of Zoology One](https://eric.ed.gov/?id=EJ1328060). *Journal of Research on Educational Effectiveness, 15*(1), 1-27. [[WWC Review](https://ies.ed.gov/ncee/WWC/Study/90363)] | Zoology One | [R305A160109](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1801) |
| 2020 | Rosen, R., Byndloss, D. C., Parise, L., Alterman, E, & Dixon, M. (2020). [*Bridging the school-to-work divide: Interim implementation and impact findings from New York City’s P-TECH 9-14 schools*](https://eric.ed.gov/?q=ED605308&id=ED605308). New York: MDRC [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/89818)] | P-TECH 9-14 model |  [R305A170250](https://ies.ed.gov/funding/grantsearch/details.asp?ID=2028) |
| 2019 | Rohrer, D., Dedrick, R. F., Hartwig, M. K., & Cheung, C. N. (2020). [A randomized controlled trial of interleaved mathematics practice](https://eric.ed.gov/?id=EJ1237752). *Journal of Educational Psychology, 112*(1), 40-52. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/88770)] | Interleaved Practice | [R305A160263](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1790) |
| 2017 | Connor, C.M., Dombek, J., Crowe, E. C., Spencer, M., Tighe, E. L., Coffinger, S., ... Petscher, Y. (2017). [Acquiring science and social studies knowledge in kindergarten through fourth grade: conceptualization, design, implementation, and efficacy testing of content-area literacy instruction (CALI).](https://eric.ed.gov/?id=EJ1136513) *Journal of Educational Psychology, 109*(3), 301-320. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/85545)] | Content-Area Literacy Instruction (CALI) | [R305F100027](https://ies.ed.gov/funding/grantsearch/details.asp?ID=988); [R305H040013](https://ies.ed.gov/funding/grantsearch/details.asp?ID=70); [R305B070074](https://ies.ed.gov/funding/grantsearch/details.asp?ID=515)  |
| 2016 | Smith, M. A., Blunt, J. R., Whiffen, J. W., & Karpicke, J. D. (2016). Does providing prompts during retrieval practice improve learning? *Applied Cognitive Psychology*, 30(4), 544-553. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/85525)] | Retrieval-Based Learning Activities | [R305A110903](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1194) |
| 2016 | Roschelle, J., Feng, M., Murphy, R. F., Mason, C. A. (2016). [Online mathematics homework increases student achievement](https://eric.ed.gov/?id=EJ1194398). *AERA Open*, 2(4), 1-12. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/86375)] | ASSISTments | [R305A120125](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1273) |
| 2016 | Heppen, J. B., Sorensen, N., Allensworth, E., Walters, K., Rickles, J., Taylor, S. S. & Michelman, V. (2017). [The struggle to pass algebra: Online vs. face-to-face credit recovery for at-risk urban students.](https://eric.ed.gov/?id=EJ1135796) *Journal of Research on Educational Effectiveness*, *10*(2), 272-296. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/84201)] | Online Algebra 1 Credit Recovery Courses | [R305A110149](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1115) |
| 2014 | Schenke, K., Rutherford, T., & Farkas, G. (2014, July). Alignment of game design features and state mathematics standards: Do results reflect intentions? *Computers & Education, 76,* 215–224. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/80703)] | ST Math | [R305A090527](https://ies.ed.gov/funding/grantsearch/details.asp?ID=830) |
| 2014 | Chung, G. K. W. K., Choi, K., Baker, E. L., & Cai, L. (2014). [*The effects of math video games on learning: A randomized evaluation study with innovative impact estimation techniques*](https://eric.ed.gov/?id=ED555700) (Report No. 841). Los Angeles, CA: National Center for Research on Evaluation, Standards, and Student Testing. [[WWC Review](http://ies.ed.gov/ncee/wwc/study/80943)] | Fractions Video Games | [R305C080015](http://ies.ed.gov/funding/grantsearch/details.asp?ID=630) |
| 2014 | Rohrer, D., Dedrick, R. F., & Burgess, K. (2014). [The benefit of interleaved mathematics practice is not limited to superficially similar kinds of problems](https://eric.ed.gov/?id=ED548041). *Psychonomic Bulletin & Review, 21*(5), 1323–1330. [[WWC Review](http://ies.ed.gov/ncee/wwc/study/80702)] | Interleaved practice | [R305A110517](http://ies.ed.gov/funding/grantsearch/details.asp?ID=1184) |
| 2014 | Pane, J. F., Griffin, B. A., McCaffrey, D. F., & Karam, R. (2014). [*Addendum to effectiveness of Cognitive Tutor Algebra I at scale*](https://eric.ed.gov/?id=ED559621) (Working Paper No. WR-1050-DEIES). Santa Monica, CA: RAND Corporation. [This is an updated analysis of the following report that was reviewed in 2013: Pane, J. F., Griffin, B. A., McCaffrey, D. F., & Karam R. (2013). [*Effectiveness of Cognitive Tutor Algebra I at scale*.](https://eric.ed.gov/?id=EJ1024233) Working Paper. Santa Monica, CA: RAND Corporation.] [[WWC Review 1](http://ies.ed.gov/ncee/wwc/study/82098) and [Review 2](http://ies.ed.gov/ncee/wwc/study/82101)] | Cognitive Tutor Algebra 1 | [R305A070185](http://ies.ed.gov/funding/grantsearch/details.asp?ID=497) |
| 2013 | Konstantopoulos, S., Miller, S.R., & van der Ploeg, A. (2013[). The impact of Indiana’s system of interim assessments on mathematics and reading achievement.](https://eric.ed.gov/?q=wwcr%3Ay&ff1=locIndiana&id=EJ1019178) *Educational Evaluation and Policy Analysis, 35*(4), 481–499. [[WWC Review](http://ies.ed.gov/ncee/wwc/study/79576)] | Diagnostic Assessment Tools (DAT) | [R305E090005](https://ies.ed.gov/funding/grantsearch/details.asp?ID=821) |
| 2013 | Edmunds, J.A., Bernstein, L., Unlu, F., Glennie, E., Willse, J., Smith, A., & Arshavsky, N. (2012). [Expanding the start of the college pipeline: Ninth-grade findings from an experimental study of the impact of the Early College High School Model](https://eric.ed.gov/?id=EJ961443). *Journal of Research on Educational Effectiveness,* *5*(2), 136–159. [[WWC Review](http://ies.ed.gov/ncee/wwc/study/81640)] | Early College High School | [R305A110085](http://ies.ed.gov/funding/grantsearch/details.asp?ID=1144); [R305R060022](http://ies.ed.gov/funding/grantsearch/details.asp?ID=211) |
| 2013 | Clements, D.H., Sarama, J., Spitler, M.E., Lange, A.A., & Wolfe, C.B. (2011). [Mathematics learned by young children in an intervention based on learning trajectories: A large-scale cluster randomized trial](https://eric.ed.gov/?id=EJ918252). *Journal for Research in Mathematics Education, 42*(2), 127–166. [[WWC Review](http://ies.ed.gov/ncee/wwc/study/77947)] | Building Blocks  | [R305K050157](http://ies.ed.gov/funding/grantsearch/details.asp?ID=1454) |
| 2012 | Taylor, J., Getty, S., Kowalski, S., Wilson, C., Carlson, J. (2015). [An Efficacy Trial of Research-Based Curriculum Materials with Curriculum-Based Professional Development](https://eric.ed.gov/?id=EJ1074631)*.* *American Educational Research Journal*, *52*(5), 984-1017. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/78575) of conference version of this paper] | BSCS Science: An Inquiry Approach | [R305K060142](https://ies.ed.gov/funding/grantsearch/details.asp?ID=103) |
| 2012 | Phelan, J., Choi, K, Vendlinski T., Baker, E. L., & Herman, J. L. (2009). [*The effects of POWERSOURCE intervention on student understanding of basic mathematical principles.*](https://eric.ed.gov/?id=ED507757) *CRESST Report 763*. Los Angeles, CA: National Center for Research on Evaluation, Standards, and Student Testing. [[WWC Review](http://ies.ed.gov/ncee/wwc/study/77029)] | POWERSOURCE | [R305A050004](https://ies.ed.gov/funding/grantsearch/details.asp?ID=128) |
| 2012 | McNeil, N. M., Fyfe, E.R., Petersen, L.A., Dunwiddie, A. E., & Brletic-Shipley, H. (2011) [Beneﬁts of practicing 4 = 2 + 2: Nontraditional problem formats facilitate children’s understanding of mathematical equivalence](https://eric.ed.gov/?id=EJ938672). *Child Development, 82*(5), 1620–1633. [[WWC Review](http://ies.ed.gov/ncee/wwc/study/78771)] | Nontraditional Addition Problem Formats | [R305B070297](http://ies.ed.gov/funding/grantsearch/details.asp?ID=483) |
| 2012 | Clarke, B., Doabler, C., Smolkowski, K., Baker, S.K., Fien, H., & Strand Cary, M. (2011). [Examining the Efficacy of a Tier 2 Kindergarten Intervention Report (Technical Report 1104](https://eric.ed.gov/?id=EJ1090698)). Eugene, OR: University of Oregon. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/79590)]  | ROOTS | [R305K040081](http://ies.ed.gov/funding/grantsearch/details.asp?ID=120); [R305A080699](http://ies.ed.gov/funding/grantsearch/details.asp?ID=599) |
| 2011 | Lorch, R.F., Jr., Lorch, E.P., Calderhead, W.J., Dunlap, E.E., Hodell, E.C., and Freer, B.D. (2010[). Learning the Control of Variables Strategy in Higher and Lower Achieving Classrooms: Contributions of Explicit Instruction and Experimentation](https://eric.ed.gov/?id=EJ876300)*.  Journal of Educational Psychology*, *102*(1): 90-101 [[WWC Reviewed](http://ies.ed.gov/ncee/wwc/study/72995)] | Control of Variables Strategy | [R305H060150](http://ies.ed.gov/funding/grantsearch/details.asp?ID=51) |
| 2010 | Bottge, B.A., Stephens, A. C., Rueda, E., Laroque, P.T., & Grant, T. S. (2010). [Anchoring problem-solving and computation instruction in context-rich learning environments.](https://eric.ed.gov/?id=EJ891825) *Exceptional Children, 76* (4), 417-437 | Enhanced Anchored Instruction | [R324A090179](http://ies.ed.gov/funding/grantsearch/details.asp?ID=793); [R305H040032](http://ies.ed.gov/funding/grantsearch/details.asp?ID=72) |
| 2010 | Clarke, B., Smolkowski, K., Baker, S., Fien, H., & Chard, D. (2011). The impact of a comprehensive Tier 1 kindergarten curriculum on the achievement of students at-risk in mathematics. *Elementary School Journal*, *111*(4), 561-584 | ELM | [R305A080114](https://ies.ed.gov/funding/grantsearch/details.asp?ID=599) |
| 2010 | Sarama, J. , Clements, D. H., Spitler, M.E., Lange, A., & Wolfe, C.B. (2010). *Mathematics learned by young children in an intervention based on learning trajectories: A large-scale cluster randomized trial*. Manuscript reviewed. [Published as: Clements, D. H., Sarama, J., Spitler, M. E., Lange, A. A., & Wolfe, C. B. (in press[). Mathematics Learned by Young Children in an Intervention Based on Learning Trajectories: A Large-Scale Cluster Randomized Trial.](https://eric.ed.gov/?id=EJ918252) Journal for Research in Mathematics Education.] [[WWC Reviewed](http://ies.ed.gov/ncee/wwc/study/77947)] | Building Blocks | [R305K050157](http://ies.ed.gov/funding/grantsearch/details.asp?ID=1454) |
| 2010 | Novick, L. R., Catley, K. M., & Funk, D. J. (2010). Characters are key: The effect of synapomorphies on cladogram comprehension. *Evo Edu Outreach*. Published online 22 June 2010. | cladogram curricula | [R305A080621](https://ies.ed.gov/funding/grantsearch/details.asp?ID=640) |
| 2009 | Taylor, K. & Rohrer, D. (2010). The effects of interleaved practice. *Applied Cognitive Psychology,* 24 (6): 837–848*.* [prepublication version reviewed] | Interleaved practice | [R305B070537](https://ies.ed.gov/funding/grantsearch/details.asp?ID=480) |
| 2009 | Roschelle, J. (2009). *Cooperative learning of mathematics with wireless handheld technology: A randomized experiment.* Manuscript reviewed. [Published as: Roschelle, J., Rafanan, K., Bhanot, R., Estrella, G., Penuel, W.R., Nussbaum, M., Claro, S. (2010). [Scaffolding Group Explanation and Feedback with Handheld Technology: Impact on Students' Mathematics Learning.](https://eric.ed.gov/?id=EJ886723) Educational Technology Research and Development, 58: 399–419 | TechPALS | [R305K060011](http://ies.ed.gov/funding/grantsearch/details.asp?ID=107) |
| 2009 | Massey, C. M., Kellman, P. J., Roth, Z., & Burke, T. (2010). Perceptual learning and adaptive learning technology: Developing new approaches to mathematics learning in the classroom. In N. L. Stein (Ed), *Developmental and learning sciences go to school: Implications for education.* New York: Routledge. | Perceptual Learning Modules (PLMs) | [R305H060070](https://ies.ed.gov/funding/grantsearch/details.asp?ID=50) |
| 2008 | Rittle-Johnson, B. and Star, J.R. (2007[). Does comparing solution methods facilitate conceptual and procedural knowledge? An experimental study on learning to solve equations.](https://eric.ed.gov/?id=EJ772031) *Journal of Experimental Psychology*, *99*(3), 561–574 [[WWC Review](http://ies.ed.gov/ncee/wwc/study/79861)] | Comparing Solution Methods | [R305H050179](http://ies.ed.gov/funding/grantsearch/details.asp?ID=62) |
| 2008 | Opfer, J, E. and Siegler, R. S. (2007). [Representational change and children‘s numerical estimation](https://eric.ed.gov/?id=EJ778363). *Cognitive Psychology, 55*, 169–195.  | Numerical Magnitude Representations | [R305H020060](http://ies.ed.gov/funding/grantsearch/details.asp?ID=84); [R305H050035](http://ies.ed.gov/funding/grantsearch/details.asp?ID=57) |
| 2008 | Kaminski, J.A., Sloutsky, V.M., and Heckler, A.F. (2008). The advantage of abstract examples in learning math. *Science, 320*, 454–455. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/67256)] | Abstract examples | [R305B070407](https://ies.ed.gov/funding/grantsearch/details.asp?ID=479) |
| 2008 | Booth, J.L. and Siegler, R.S. (2008[). Numerical magnitude representations influence arithmetic learning](https://eric.ed.gov/?id=EJ802180). *Child Development*, *79*(4), 1016–1031. [[WWC Review](http://ies.ed.gov/ncee/wwc/study/73674)] | Numerical Magnitude Representations | [R305H020060](http://ies.ed.gov/funding/grantsearch/details.asp?ID=84); [R305H050035](http://ies.ed.gov/funding/grantsearch/details.asp?ID=57) |
| 2007 | Starkey, P., Clements, D., Klein, A., & Sarama, J. [Pre-Kindergarten Mathematics Curriculum evaluation. Evaluation described in Preschool Curriculum Evaluation Research Consortium](https://eric.ed.gov/?id=ED502153) (2008). *Effects of Preschool Curriculum Programs on School Readiness* (NCER 2008–2009). U.S. Department of Education, National Center for Education Research. Washington, DC: U.S. Government Printing Office. [[WWC Review](http://ies.ed.gov/ncee/wwc/study/29243)] | Ready, Set, Leap! | [R305J020039](http://ies.ed.gov/funding/grantsearch/details.asp?ID=886); [R305J020040](http://ies.ed.gov/funding/grantsearch/details.asp?ID=887);[R305J020051](http://ies.ed.gov/funding/grantsearch/details.asp?ID=883); [R305J030093](http://ies.ed.gov/funding/grantsearch/details.asp?ID=878); [R305J030103](http://ies.ed.gov/funding/grantsearch/details.asp?ID=877) |
| 2007 | McDaniel, M. A., Anderson, J. L., & Morrisette, N. Test-Enhanced Learning in the Classroom. Manuscript reviewed. Published as: McDaniel, M. A., Anderson, J. L., Derbish, M. H., & Morrisette, N. (2007). Testing the testing effect in the classroom. *European Journal of Cognitive Psychology*, 19 (4/5), p 494-513. | Test-Enhanced Learning (TEL) | [R305H030339](https://ies.ed.gov/funding/grantsearch/details.asp?ID=821) |
| 2007 | Ramani, G. B. & Siegler, R. S. (2008). [Promoting broad and stable improvements in low-income children’s numerical knowledge through playing number board games.](https://eric.ed.gov/?id=EJ789398) *Child Development, 79(2)*, 375-394. [[WWC Review](http://ies.ed.gov/ncee/wwc/study/73664)] | Number Board Games | [R305H020060](http://ies.ed.gov/funding/grantsearch/details.asp?ID=84); [R305H050035](http://ies.ed.gov/funding/grantsearch/details.asp?ID=57) |
| 2007 | Rohrer, D. & Taylor, K. (2006). [The effects of overlearning and distributed practice on the retention of mathematics knowledge](https://eric.ed.gov/?id=ED505642). *Applied Cognitive Psychology, 20,* 1209-1224. | Distributed Practice | [R305H020061](http://ies.ed.gov/funding/grantsearch/details.asp?ID=90); [R305H040108](http://ies.ed.gov/funding/grantsearch/details.asp?ID=71) |

# Interventions With Evidence of Efficacy in Enhancing Teacher Characteristics with Demonstrated Positive Effects on Student Outcomes

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| **GPRA Review Year** | **Reviewed Paper** | **Intervention Name** | **Grant Number** |
| 2023 | Bradshaw, C. P., Pas, E. T., Bottiani, J. H., Debnam, K. J., Reinke, W. M., Herman, K. C., & Rosenberg, M. S. (2018). [Promoting cultural responsivity and student engagement through double check coaching of classroom teachers: An efficacy study](https://eric.ed.gov/?id=EJ1181996). *School Psychology Review, 47*(2), 118-134. [[WWC Review](https://ies.ed.gov/ncee/wwc/study/89495)] | Double check cultural responsivity and student engagement model | [R305A150221](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1733); [R324A110107](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1095) |
| 2022 | Allen, J. P., Pianta, R. C., Gregory, A., Mikami, A. Y., & Lun, J. (2011). [An interaction-based approach to enhancing secondary school instruction and student achievement](https://eric.ed.gov/?id=ED556046). *Science, 333*(6045), 1034-1037. [[WWC Review](https://ies.ed.gov/ncee/wwc/study/80136)] | Teaching partner, secondary: a Web-mediated approach on improving teacher-student interactions in the classroom | [R305A100367](http://ies.ed.gov/funding/grantsearch/details.asp?ID=916) |
| 2020 | Cowan, J., & Goldhaber, D. (2016). [National board certification and teacher effectiveness: Evidence from Washington State.](https://eric.ed.gov/?id=EJ1106512)*Journal of Research on Educational Effectiveness*, *9*(3), 233-258. [[WWC Review](https://ies.ed.gov/ncee/wwc/study/84859)] | NBCTs | [R305A060018](https://ies.ed.gov/funding/grantsearch/details.asp?ID=123) |
| 2012 | Sarama, J., Clements, D. H., Wolfe, C. B., & Spitler, M. E. (2012). [Longitudinal evaluation of a scale-up model for teaching mathematics with trajectories and technologies.](https://eric.ed.gov/?id=EJ950696) *Journal of Research on Educational Effectiveness, 5*(2), 105-135. [[WWC Review](http://ies.ed.gov/ncee/wwc/study/78770)] | Early Vocabulary Connections | [R305A070045](http://ies.ed.gov/funding/grantsearch/details.asp?ID=517) |
| 2011 | Vaughn, S., Klinger, J., Swanson, E., Boardman, A., Roberts, G., Mohammed, S., & Stillman-Spisak, S. (2011[). Efficacy of Collaborative Strategic Reading with middle school students](https://eric.ed.gov/?id=EJ932384). *American Educational Research Journal, 48*(4), 938-964. | Collaborative Strategic Reading | [R305A080608](http://ies.ed.gov/funding/grantsearch/details.asp?ID=662) |
| 2011 | Kim, J.S., Olson, C.B., Scarcella, R., Kramer, J. et al. (2011). [A randomized experiment of a cognitive strategies approach to text-based analytical writing for mainstreamed Latino English Language Learners in grades 6 to 12](https://eric.ed.gov/?id=EJ932553). *Journal of Research on Educational Effectiveness*, *4*(3), 231-263. [[WWC Review](http://ies.ed.gov/ncee/wwc/study/78614)] | Pathway Project and Secondary Writing | [R305W060016](http://ies.ed.gov/funding/grantsearch/details.asp?ID=330) |
| 2010 | O'Connor, R. E., Swanson, H. S., & Geraghty, C. (2010). [Improvement in reading rate under independent and difficult text levels: Influences on word and comprehension skills.](https://eric.ed.gov/?id=EJ876298)  *Journal of Educational Psychology, 102* (1), 1-19. [Study 2: intervention is read aloud at difficult level] [[WWC Review](http://ies.ed.gov/ncee/wwc/study/82978)] | Reading Rate Intervention | [R305G050122](http://ies.ed.gov/funding/grantsearch/details.asp?ID=176) |
| 2009 | Vaughn, S., Martinez, L. R., Linan-Thompson, S., Reutebuch, C. K., Carlson, C. D., and Francis, D. J. (2009). [*Enhancing social studies vocabulary and comprehension for 7th grade English language learners: Findings from two experimental studies*](https://eric.ed.gov/?id=EJ866979)*.* Manuscript. [Published as: Vaughn, S., Martinez, L.R., Linan-Thompson, S., Reutebuch, C.K., Carlson, C.D., and Francis, D.J. (2009). Enhancing Social Studies Vocabulary and Comprehension for Seventh-Grade English Language Learners: Findings From Two Experimental Studies. Journal of Research on Educational Effectiveness, (Special Issue: Effective Practices for English Language Learners in the Middle Grades), 2 (4): 297–324.] [[WWC Review](http://ies.ed.gov/ncee/wwc/study/78717)] | Professional development for teachers of English learners | [R305A050056](http://ies.ed.gov/funding/grantsearch/details.asp?ID=129) |
| 2009 | Vadasy, P. F. & Sanders, E. A. (2010). [Efficacy of Supplemental Phonics-Based Instruction for Low-Skilled Kindergarteners in the Context of Language Minority Status and Classroom Phonics Instruction](https://eric.ed.gov/?id=EJ910429). *Journal of Educational Psychology*, *102*(4), 786-803. [[WWC Review](http://ies.ed.gov/ncee/wwc/study/82943)] | Sound Partners | [R305A070324](http://ies.ed.gov/funding/grantsearch/details.asp?ID=519) |
| 2009 | Landry, S. H., Anthony, J. L., Swank, P. R., & Monsegue-Bailey, P. (2009[). Effectiveness of comprehensive professional development for teachers of at-risk preschoolers.](https://eric.ed.gov/?id=EJ835029) *Journal of Educational Psychology, 101*(2), 448–465.  | Professional development for prekindergarten teachers | [R305W020002](http://ies.ed.gov/funding/grantsearch/details.asp?ID=212) |
| 2008 | Xu, Z., Hannaway, J., and Taylor, C. (2007). [*Making a Difference? The Effects of Teach for America in High School*](https://eric.ed.gov/?id=EJ938590)*.* National Center for Analysis of Longitudinal Data in Education Research Working Paper 17*.* Center for Analysis of Longitudinal Data in Education Research (CALDER). [[WWC Review](http://ies.ed.gov/ncee/wwc/study/1119)] | Teach for America | [R305A060067](http://ies.ed.gov/funding/grantsearch/details.asp?ID=123) |
| 2008 | Justice, L. M., Kaderavek, J. N., Fan, X., Sofka, A., and Hunt, A. (2009[). Accelerating preschoolers’ early literacy development through classroom-based teacher-child storybook reading and explicit print referencing.](https://eric.ed.gov/?id=EJ825007) *Language, Speech, and Hearing Services in Schools*, *40*(1), 67-85. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/79869)] | Print Referencing | [R305G050005](https://ies.ed.gov/funding/grantsearch/details.asp?ID=180) |
| 2007 | Connor, C. M., Morrison, F. J., Fishman, B. J., Schatschneider, C., & Underwood, P. (2007). [Algorithm-guided individualized reading instruction](https://www.science.org/doi/full/10.1126/science.1134513). *Science*, *315*, 464-465. | A2i (Assessment to Instruction) | [R305H040013](https://ies.ed.gov/funding/grantsearch/details.asp?ID=70) |
| 2007 | Powell, D. Professional development in early reading (from annual report). [Study findings reported here: Powell, D.R., Diamond, K.E., Burchinal, M.R., and Koehler, M.J. (2010). [Effects of an Early Literacy Professional Development Intervention on Head Start Teachers and Children](http://eric.ed.gov/?id=EJ884844). *Journal of Educational Psychology, 102*(2): 299–312.] | Early Literacy Professional Development | [R305M040167](https://ies.ed.gov/funding/grantsearch/details.asp?ID=341) |
| 2007 | Stigler, J. & Santagata, R. Professional development in mathematics (annual report). [Study findings reported here: Santagata, R., Kersting, K., Givvin, K., and Stigler, J.W. (2011). [Problem Implementation as a Lever for Change: An Experimental Study of the Effects of a Professional Development Program on Students' Mathematics Learning](http://eric.ed.gov/?id=EJ911538). *Journal for Research on Educational Effectiveness, 4*(1): 1–24.] | Algebra Learning for All (ALFA) | [R305M030154](https://ies.ed.gov/funding/grantsearch/details.asp?ID=327) |

# Interventions With Evidence of Efficacy of Improving Access to, Retention in, and Completion of Postsecondary Education

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| **GPRA Review Year** | **Reviewed Paper** | **Intervention Name** | **Grant Number** |
| 2023 | Schudde, L., & Meiselman, A. Y. (2019). [*Early outcomes of Texas community college students enrolled in Dana Center mathematics pathways prerequisite developmental courses*](https://eric.ed.gov/?id=ED597974). Center for the Analysis of Postsecondary Readiness. [[WWC Review](https://ies.ed.gov/ncee/wwc/study/89338)] | Mathematics pathways prerequisite developmental courses | [R305C140007](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1493) |
| 2022 | Dixon, M., & Rosen, R. (2022). [*On ramp to college: Dual enrollment impacts from the evaluation of New York City’s P-TECH 9-14 schools*](https://eric.ed.gov/?id=ED618886). MDRC.  | P-TECH 9-14 model | [R305A170250](https://ies.ed.gov/funding/grantsearch/details.asp?ID=2028) |
| 2022 | Rosen, R., Byndloss, D. C., Parise, L., Alterman, E., & Dixon, M. (2020). [*Bridging the school-to-work divide: Interim implementation and impact findings from New York City’s P-TECH 9-14 schools*](https://eric.ed.gov/?id=ED605308). MDRC. [[WWC Review](https://ies.ed.gov/ncee/wwc/study/89818)] | P-TECH 9-14 model | [R305A170250](https://ies.ed.gov/funding/grantsearch/details.asp?ID=2028) |
| 2022 | MacArthur, C. A., Traga Philippakos, Z. A., May, H., & Compello, J. (2022). [Strategy instruction with self-regulation in college developmental writing courses: Results from a randomized experiment](https://eric.ed.gov/?q=EJ1338886&id=EJ1338886). *Journal of Educational Psychology*, *114*(4), 815–832. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/90669)] | College developmental writing courses based on strategy instruction with self-regulation integrated | [R305A160242](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1809) |
| 2022 | Weiss, M. J., & Headlam, C. (2019). [A randomized controlled trial of a modularized, computer-assisted, self-paced approach to developmental math](https://eric.ed.gov/?id=ED599762). *Journal of Research on Educational Effectiveness, 12*(3), 484-513. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/90018)] | Modularized, computer-assisted, self-paced approach to developmental math | [R305A130125](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1441) |
| 2021 | Anastopoulos, A. D., Langberg, J. M., Eddy, L. D., Silvia, P. J., & Labban, J. D. (2021). [A randomized controlled trial examining CBT for college students with ADHD](https://eric.ed.gov/?id=ED610984). *Journal of Consulting and Clinical Psychology, 89*(1), 21–33. [[WWC Review](https://ies.ed.gov/ncee/WWC/Study/90490)] | Accessing campus connections and empowering student success | [R305A150207](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1661) |
| 2021 | Eddy, L. D., Anastopoulos, A. D., Dvorsky, M. R., Silvia, P. J., Labban, J. D., & Langberg, J. M. (2021). [An RCT of a CBT intervention for emerging adults with ADHD attending college: Functional outcomes](https://eric.ed.gov/?id=ED611007). *Journal of Clinical Child & Adolescent Psychology*. [[WWC Review](https://ies.ed.gov/ncee/WWC/Study/90359)] | Accessing campus connections and empowering student success | [R305A150207](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1661) |
| 2021 | Miller, T., Daugherty, L., Martorell, P., & Gerber, R. (2021). [Assessing the effect of corequisite English instruction using a randomized controlled trial](https://eric.ed.gov/?id=EJ1327668). *Journal of Research on Educational Effectiveness, 15*(1), 78-102. [[WWC Review](https://ies.ed.gov/ncee/WWC/Study/90316)] | Corequisite remediation | [R305H170085](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1754); [R305N170003](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1909);[R305H150094](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1754) |
| 2021 | Miller, C., & Weiss, M. J. (2021). [Increasing community college graduation rates: A synthesis of findings on the ASAP Model from six colleges across two states](https://eric.ed.gov/?id=ED611732). *Educational Evaluation and Policy Analysis, 44*(2), 210-233.[[WWC Review](https://ies.ed.gov/ncee/WWC/Study/90361)] | Accelerated study in associate programs | [R305D140012](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1499); [R305A160273](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1851) |
| 2020 | Barnett, E., Bergman, P., Kopko, E. M., Reddy, V. T., Belfield, C., & Roy, S. (2018). [Multiple measures placement using data analytics: An implementation and early impacts report](https://eric.ed.gov/?id=ED588752). [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/86409)] | Multiple measures placement using data analytics | [R305C140007](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1493) |
| 2020 | Scrivener, S., Gupta, H., Weiss, M. J., Cohen, B., Cormier, M. S., & Brathwaite, J. (2018). [Becoming college-ready: Early findings from a CUNY Start evaluation.](https://eric.ed.gov/?q=funded%3ay&ff1=wrv_1&id=ED586380)*New York: MDRC, July.* [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/86380)] | CUNY Start | [R305H140065](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1520) |
| 2020 | Weiss, M. J., Ratledge, A., Sommo, C., & Gupta, H. (2019). [Supporting community college students from start to degree completion: Long-term evidence from a randomized trial of CUNY’s ASAP](https://eric.ed.gov/?q=ED604399&id=ED604399). *American Economic Journal*: *Applied Economics, 11*(3), 253–297. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/89832)] | CUNY Accelerated Study in Associate Programs | [R305A160273](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1851) |
| 2020 | Rutschow, E. Z., Sepanik, S., Deitch, V., Raufman, J., Dukes, D., & Moussa, A. (2019). [*Gaining ground: Findings from the Dana Center Mathematics Pathways impact study*](https://eric.ed.gov/?q=ED600649&id=ED600649). New York: Community College Research Center at Teachers College, Columbia University, and MDRC. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/89253)] | Dana Center Mathematics Pathways | [R305C140007](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1493) |
| 2020 | Hemelt, S. W., Schwartz, N. L., & Dynarski, S. M. (2019). [Dual-credit courses and the road to college: Experimental evidence from Tennessee](https://eric.ed.gov/?q=EJ1257048&id=EJ1257048). *Journal of Policy Analysis and Management, 39*(3), 686–719. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/89801)] | Dual Credit Coursework | [R305H140028](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1473) |
| 2020 | Edmunds, J. A., Unlu, F., Furey, J., Glennie, E., & Arshavsky, N. (2020). [What happens when you combine high school and college? The impact of the early college model on postsecondary performance and completion.](https://eric.ed.gov/?id=EJ1253291) *Educational Evaluation and Policy Analysis, 42*(2), 257–278. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/89800)] | Early College | [R305R060022](https://ies.ed.gov/funding/grantsearch/details.asp?ID=211); [R305A110085](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1144); [R305A140361](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1506); [R305H190036](https://ies.ed.gov/funding/grantsearch/details.asp?ID=3255) |
| 2019 | Bettinger, E. P., & Evans, B. J. (2019). [College guidance for all: A randomized experiment in pre‐college advising.](https://eric.ed.gov/?id=EJ1218000)*Journal of Policy Analysis and Management*. Advanced online publication. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/88766)] | Advise TX | [R305E130009](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1387) |
| 2016 | Edmunds, J., Unlu, F., Glennie, E., Bernstein, L., Fesler, L., Furey, J., & Arshavsky, N. (2017). [Smoothing the transition to postsecondary education: The impact of the early college model.](https://eric.ed.gov/?id=EJ1135800) *Journal of Research on Educational Effectiveness*, *10*(2), 297-325. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/86428)] | Early College High School | [R305R060022](https://ies.ed.gov/funding/grantsearch/details.asp?ID=211); [R305A110085](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1144); [R305A140361](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1506) |
| 2015 | Weiss, M. J. Mayer, A. K., Cullinan, D., Ratledge, A., Sommo, C., & Diamond, J. (2015[). A random assignment evaluation of learning communities at Kingsborough Community College--seven years later](https://eric.ed.gov/?id=EJ1057073). *Journal of Research on Educational Effectiveness*, 8, 189–217. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/90031)] | Learning Communities | [R305A100066](https://ies.ed.gov/funding/grantsearch/details.asp?ID=929) |
| 2016 | Mayer, A.K., Patel, R., & Gutierrez, M. (2016[). Four-Year Degree and Employment Findings From a Randomized Controlled Trial of a One-Year Performance-Based Scholarship Program in Ohio](https://eric.ed.gov/?id=EJ1106520), Journal of Research on Educational Effectiveness, 9:3, 283-306. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/82726)] | Performance-Based Scholarship Program | [R305A110204](http://ies.ed.gov/funding/grantsearch/details.asp?ID=1143) |
| 2015 | Binder, M., Krause, K., Miller, C., & Cerna, O. (2015). Providing incentives for timely progress toward earning a college degree: Results from a performance-based scholarship experiment. Working paper. New York: MDRC. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/82715)] | Performance-Based Scholarship Program |  |
| 2013 | Daugherty, L., Martorell, P., & McFarlin Jr., I. (2012). Percent plans, automatic admissions, and college enrollment outcomes. *IZA Journal of Labor Economics, 3*(1), 10. | Texas Ten Percent Plan | [R305A080620](https://ies.ed.gov/funding/grantsearch/details.asp?ID=663) |
| 2013 | Castleman, B.L., & Long, B.T. (2013). [*Looking beyond enrollment: The causal effect of need-based grants on college access, persistence, and graduation*](https://eric.ed.gov/?id=ED544793)(NBER Working Paper 19306). Cambridge, MA: National Bureau of Economic Research. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/78086)] | Florida Student Access Grant (FSAG) | [R305A060010](https://ies.ed.gov/funding/grantsearch/details.asp?ID=124)  |
| 2012 | Visher, M.G., Weiss, M.J., Weissman, E., Rudd, T. and Wathington, H. D. (2012). [*The effects of learning communities for students in developmental education: A synthesis of findings from six community colleges*](https://eric.ed.gov/?id=ED533825)*.* New York, NY: National Center for Postsecondary Research. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/82590)] | Linked Learning Communities | [R305A060010](http://ies.ed.gov/funding/grantsearch/details.asp?ID=124) |
| 2012 | Speroni, C. (2011). [*High school dual enrollment programs: Are we fast-tracking students too fast*](https://eric.ed.gov/?id=ED527527)*?* (Working paper). New York, NY: National Center for Postsecondary Research. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/84160)] | Dual Enrollment | [R305A060010](http://ies.ed.gov/funding/grantsearch/details.asp?ID=124) |
| 2012 | Bettinger, E. P., Long, B. T., Oreopoulos, P., & Sanbonmatsu, L. (2012). The role of application assistance and information in college decisions: Results from the H&R Block FAFSA experiment. Quarterly Journal of Economics, 127(3), 1205–1242 [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/78087)] | FAFSA Simplification | [R305A060010](http://ies.ed.gov/funding/grantsearch/details.asp?ID=124) |
| 2012 | Barnett, E.A., Bork, R.H., Mayer, A.K., Pretlow, J., Wathington, H.D., & Weiss, M.D (2012). [Bridging the gap: An impact study of eight developmental summer bridge programs in Texas](https://eric.ed.gov/?id=ED533824) (2012). New York, NY: National Center for Postsecondary Education. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/81627)] | Developmental summer bridge programs | [R305A060010](http://ies.ed.gov/funding/grantsearch/details.asp?ID=124) |

# Interventions With Evidence of Efficacy of Improving School Readiness Outcomes in Early Childhood

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| **GPRA Review Year** | **Reviewed Paper** | **Intervention Name** | **Grant Number** |
| 2023 | Wasik, B. A., & Hindman, A. H. (2020). [Increasing preschoolers’ vocabulary development through a streamlined teacher professional development intervention](https://eric.ed.gov/?id=ED611720). *Early Childhood Research Quarterly, 50*, 101-113. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/90207)] | Story talk, a book reading intervention | [R305A140034](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1468) |
| 2023 | Clements, D. H., Sarama, J., Baroody, A. J., Joswick, C., & Wolfe, C. B. (2019). [Evaluating the efficacy of a learning trajectory for early shape composition](https://eric.ed.gov/?id=EJ1234710). *American Educational Research Journal, 56*(6), 2509-2530. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/90102)] | Learning trajectories-based instruction | [R305A150243](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1722) |
| 2022 | McClelland, M. M., Tominey, S. L., Schmitt, S. A., Hatfield, B. E., Purpura, D. J., Gonzales, C. R., & Tracy, A. N. (2019). [Red light, purple light! Results of an intervention to promote school readiness for children from low-income backgrounds](https://eric.ed.gov/?id=ED599347)*. Frontiers in Psychology, 10*, 2365. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/90354)] | Red light, purple light circle time games | [R305A150196](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1710) |
| 2020 | Whittaker, J. V., Kinzie, M. B., Vitiello, V., DeCoster, J., Mulcahy, C., & Barton, E. A. (2020). [Impacts of an early childhood mathematics and science intervention on teaching practices and child outcomes](https://eric.ed.gov/?q=EJ1254361&id=EJ1254361). *Journal of Research on Educational Effectiveness, 13*(2), 177–212. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/89773)] | MyTeachingPartner-Math/Science | [R305A120631](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1306); [R305B140026](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1457) |
| 2020 | Spencer, T. D., Moran, M., Thompson, M. S., Petersen, D. B., & Restrepo, M. A. (2020). [Early efficacy of multitiered dual-language instruction: Promoting preschoolers’ Spanish and English oral language](https://eric.ed.gov/?q=EJ1248442&id=EJ1248442). *AERA Open, 6*(1), 1–16. [[WWC Review](https://ies.ed.gov/ncee/wwc/study/89771)] | Multitiered Dual-language Instruction | [R305A140093](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1540) |
| 2018 | Lipsey, M. W., Farran, D. C., & Durkin, K. (2018). Effects of the Tennessee prekindergarten program on children’s achievement and behavior through third grade. *Early Childhood Research Quarterly*, *45*, 155–176*.* | Tennessee Pre-K Program | [R305E090009](https://ies.ed.gov/funding/grantsearch/details.asp?ID=820) |
| 2017 | Upshur, C. C., Heyman, M., & Wenz-Gross, M. (2017). [Efficacy trial of the Second Step Early Learning (SSEL) curriculum: Preliminary outcomes](https://eric.ed.gov/?q=wwcr%3Ar&id=ED573440). *Journal of Applied Developmental Psychology, 50*, 15-25 [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/85540)] | Second Step Early Learning (SSEL) | [R305A130336](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1442) |
| 2016 | Phillips, B. M., Tabulda, G., Ingrole, S. A., Burris, P. W., Sedgwick, T. K., & Chen, S. (2016). [*Literate language intervention with high-need prekindergarten children: A randomized trial*.](https://eric.ed.gov/?id=EJ1124170) Report. Tallahassee, Florida: Florida State University. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/85558)] | Literate language intervention | [R305F100027](https://ies.ed.gov/funding/grantsearch/details.asp?ID=988) |
| 2015 | Landry, S., Zucker, T. A., Williams, J. M., Merz, E. C., & Guttentag, C. L. (under review). Improving school readiness of high-risk preschoolers: Combining high quality instructional strategies with responsive training for teachers and parents. *Early Childhood Research Quarterly*. |  |  |
| 2015 | Clements, D. H., Sarama, J., Wolfe, C. B., & Spitler, M. E. (2012). [Longitudinal evaluation of a scale-up model for teaching mathematics with trajectories and technologies: Persistence of effects in the third year.](https://eric.ed.gov/?id=EJ1014930) *American Educational Research Journal*, *50*, 812–850 [[WWC Review](http://ies.ed.gov/ncee/wwc/study/81659)] | TRIAD model | [R305K050157](http://ies.ed.gov/funding/grantsearch/details.asp?ID=1454) |
| 2015 | Clements, D. H., Sarama, J., Layzer, C., Unlu, F., & Fesler, L. (2020). [Effects on Mathematics and Executive Function of a Mathematics and Play Intervention Versus Mathematics Alone,](https://eric.ed.gov/?id=EJ1255793) Journal for Research in Mathematics Education, 51(3), 301-333. | Building Blocks | [R305A080700](https://ies.ed.gov/funding/grantsearch/details.asp?ID=592) |
| 2015 | Brotman, L. M., Dawson-McClure, S., Calzada, E. J., Huang, K., Kamboukos, D., Palamar, J., and Petkova, E. (2013, May). Cluster (school) RCT of ParentCorps: Impact of kindergarten academic achievement. Pediatrics, 131(5), 1521–1529. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/81479)] | ParentCorps | [R305A100596](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1023) |
| 2014 | Neville, H. J., Stevens, C., Pakulak, E., Bell, T. A., Fanning, J., Klein, S., & Isbell, E. (2013). [Family-based training program improves brain function, cognition, and behavior in lower socioeconomic status preschoolers.](https://eric.ed.gov/?id=ED563293) *Proceedings of the National Academy of Sciences, 110* (29), 12138-12143. [[WWC Review]](http://ies.ed.gov/ncee/wwc/study/80698) | Parents and Children Making Connections- Highlighting Attention (PCC-A) | [R305B070018](https://ies.ed.gov/funding/grantsearch/details.asp?ID=484) |

# Interventions With Evidence of Efficacy of Improving Behavior Outcomes Related to Academic Achievement

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| **GPRA Review Year** | **Reviewed Paper** | **Intervention Name** | **Grant Number** |
| 2022 | Pas, E. T., Ryoo, J. H., Musci, R. J., & Bradshaw, C. P. (2019). [A state-wide quasi-experimental effectiveness study of the scale-up of school-wide positive behavioral interventions and supports](https://eric.ed.gov/?id=ED593800). *Journal of School Psychology, 73*, 41-55. [[WWC Review](https://ies.ed.gov/ncee/wwc/study/89237)] | School-wide positive behavioral interventions and supports | [R305H150027](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1643) |
| 2019 | Mac Iver, M. A., Stein, M. L., Davis, M. H., Balfanz, R. W., & Fox, J. H. (2019). [An efficacy study of a ninth-grade early warning indicator intervention.](https://eric.ed.gov/?id=EJ1229043) *Journal of Research on Educational Effectiveness, 12*(3), 363–390. | Early Warning Intervention (EWI) | [R305A120677](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1319) |
| 2017 | Guryan, J., Christenson, S., Claessens, A., Engel, M., Lai, I., Ludwig, J., ... Turner, M. C. (2017). [The effect of mentoring on school attendance and academic outcomes: A randomized evaluation of the Check & Connect program](https://eric.ed.gov/?id=ED608529) (Working Paper WP-16-18). Evanston, IL: Institute for Policy Research, Northwestern University. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/85550)] | Check & Connect  | [R305A120809](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1026)  |

# Interventions With Evidence of Efficacy of Improving Social-Emotional Outcomes Related to Academic Achievement

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| **GPRA Review Year** | **Reviewed Paper** | **Intervention Name** | **Grant Number** |
| 2020 | Chuang, C., Reinke, W. M., & Herman, K. C. (2020). [Effects of a universal classroom management teacher training program on elementary children with aggressive behaviors](https://eric.ed.gov/?id=EJ1245574). *School Psychology, 35*(2), 128–136. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/89768)] | Incredible Years Teacher Classroom Management (IY TCM) | [R305A100342](https://ies.ed.gov/funding/grantsearch/details.asp?ID=915) |
| 2019 | Jamieson, J. P., Peters, B. J., Greenwood, E. J., & Altose, A. J. (2016). [Reappraisal stress arousal improves performance and reduces evaluation anxiety in classroom exam situations](https://eric.ed.gov/?id=ED566260). *Social Psychological and Personality Science, 7*(6), 579–587. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/88758)] | Stress Reappraisal | [R305A150036](http://ies.ed.gov/funding/grantsearch/details.asp?ID=1656) |
| 2019 | Borman, G. D., Rozek, C. S., Pyne, J., & Hanselman, P. (2019). [Reappraising academic and social adversity improves middle school students’ academic achievement, behavior, and well-being.](https://eric.ed.gov/?id=ED600814) *Proceedings of the National Academy of Sciences, 116*(33), 16286–16291. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/88768)] | self-affirmation intervention | [R305A110136](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1112) |
| 2018 | Langberg, J. M., Dvorsky, M. R., Molitor, S. J., Bourchtein, E., Eddy, L. D., Smith, Z. D., . . . Eadeh, H. M. (2018). [Overcoming the research-to-practice gap: A randomized trial with two brief homework and organization interventions for students with ADHD as implemented by school mental health providers](https://eric.ed.gov/?id=ED578876). *Journal of Consulting and Clinical Psychology*, *86*(1), 39–55. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/86117)] | Homework, Organization, and Planning Skills (HOPS) and Completing Homework by Improving Efficiency and Focus (CHIEF) | [R305A130011](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1396) |
| 2018 | Frank, J. L., Broderick, P. C., Oh, Y., Mitra, J., Kohler, K., Schussler, D. L., . . . Greenberg, M. T. (2018). *The effectiveness of a teacher delivered mindfulness-based curriculum on adolescent social-emotional and executive functioning*. Unpublished manuscript. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/86114)] | Learning to Breathe (L2B) | [R305A140113](https://ies.ed.gov/funding/grantsearch/details.asp?ID=1484)  |
| 2017 | DiPerna, J. C., Lei, P., Bellinger, J., & Cheng, W. (2015). [Efficacy of the Social Skills Improvement System Classwide Intervention Program (SSIS-CIP) Primary Version](https://eric.ed.gov/?q=EJ1056685&id=EJ1056685). *School Psychology Quarterly, 30*(1), 123-141. DiPerna, J., Lei, P., Bellinger, J. & Cheng, W. (2016). Effects of a universal positive classroom behavior program on student learning. *Psychology in Schools, 53*(2), 189-202. [[WWC Review](https://ies.ed.gov/ncee/wwc/Study/85556)] | Social Skills Improvement System Classwide Intervention Program (SSIS-CIP) | [R305A090438](http://ies.ed.gov/funding/grantsearch/details.asp?ID=846) |