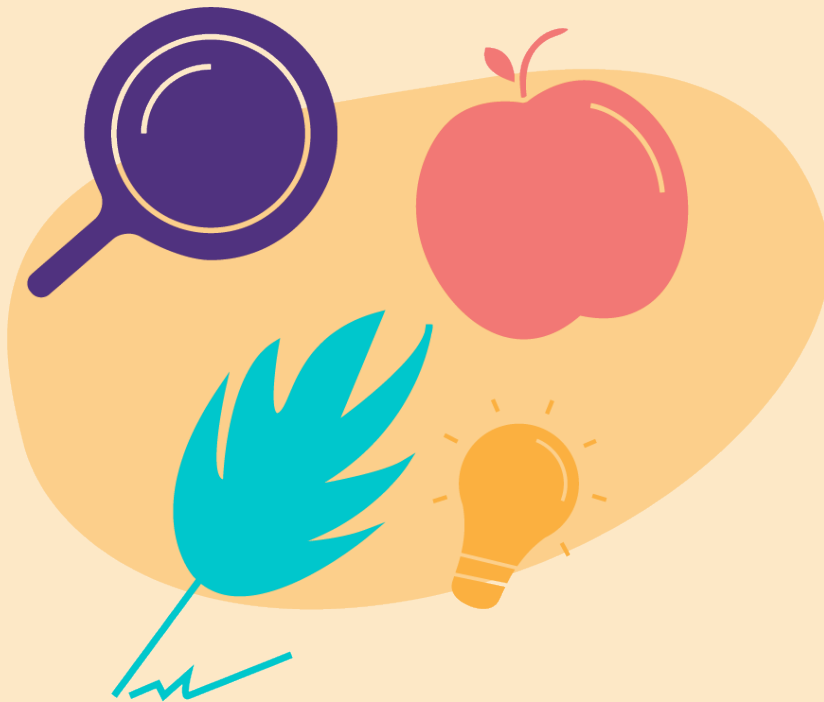


Using small-group tutoring to address learning gaps: A summary of research evidence

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Executive Summary

When executed carefully, tutoring is a cost-effective educational intervention that can redress learning loss for students of all ages across a wide range of subject areas. This review of the literature on the efficacy of small-group tutoring suggests the following design principles for maximising the likelihood of program success:

Train and monitor tutors

- Certified teachers yield the largest improvements in student performance,
- Tutors without formal educational credentials can still be effective, especially tutoring from adult volunteers such as university students, especially preservice teachers.
- Tutors should be trained in the particular method of tutoring and monitored by a teacher or teaching expert, such as a university supervisor or reading specialist.

Support attendance and relationship building

- Attendance is a frequent obstacle to the success of tutoring. Programs should choose a program setting that optimises the ease of attendance for the community they serve. In addition, programs should develop plans for supporting students and families who struggle with attendance.
- Tutoring is more effective when tutors build positive, mentoring relationships grounded in listening, understanding, and respect. Assigning students to the same tutor for the duration of the program can facilitate relationship development. Strong relationships likely help improve attendance.

Coordinate with classroom instruction

- Tutoring is more effective when aligned with classroom instruction and targeted to student learning gaps. Tutoring programs should develop

systems and structures for regular communication between tutors and classroom teachers.

- Tutors should be made aware if students have particular instructional needs related to new language acquisition or disability. Wherever possible, these students should be assigned to tutors with appropriate qualifications.

Provide a frequent, sustained tutoring experience in small groups

- The most successful tutoring programs meet with students frequently over an extended period of time. Longer programs yield larger performance gains than shorter ones.
- Evidence shows that small-group tutoring is most effective when groups are kept at two to four students, but there have been positive impacts for some programs using groups of up to ten.
- Flexible, homogeneous grouping is associated with larger performance gains than static and/or heterogeneous grouping. This is likely because it allows for the personalisation of teaching points in a small-group format.

Deliver structured lessons and give constructive feedback

- Programs that use structured lesson plans for tutoring sessions are more effective than those that have tutors give general homework or test preparation support.
- Tutors should give students constructive, corrective feedback throughout the lesson.
- Lessons should include some direct instruction without being repetitive or drill-based. All students can benefit from opportunities to actively construct understanding.
- In literacy, phonics instruction is essential for supporting decoding, and metacognitive strategy instruction is important for supporting comprehension.

Engage in frequent, ongoing assessment

- Frequent assessment helps tutors target instruction to the needs of their pupils and scaffold instruction accordingly, enhancing their learning.
- Ongoing assessment of student self-efficacy and motivation can help tutors recognise and address any issues that may interfere with learning.

In recent months, schools across Australia, particularly in Victoria, have experienced rolling closures and periods of remote learning due to the COVID-19 pandemic. Previous research on schooling disruptions suggests that the majority of students will have experienced some degree of learning loss during this time (Kuhfeld & Tarasawa, 2020). Learning loss has likely been greater among students who were already struggling academically and/or navigating socioeconomic disadvantage prior to the pandemic (Sahlberg, 2020; Sonneman & Goss, 2020). In recent surveys of Australian educators, teachers of students in less-advantaged communities were less confident in their students' academic progress during remote schooling (Wilson et al., 2020) and more concerned about their basic needs (Flack et al., 2020).

Decades of research demonstrate that small-group tutoring is a promising strategy for addressing learning loss in the current context. Research supports the efficacy of many forms of tutoring (e.g., one-on-one, small-group, peer-to-peer) for a wide range of pupils, including students with disabilities (Chi et al., 2001; D'Agostino & Harmey, 2016; Juel, 1996; Jun et al., 2010; Mathes & Fuchs, 1994; Shanahan, 1998; Wasik & Slavin, 1993). In particular, small-group tutoring can help close learning gaps by providing targeted remedial support to students who need it most (Gilbert et al., 2013; Harmon et al., 2005; Huang, 2013; Zimmer et al., 2010). However, the efficacy of tutoring depends on many factors, including its content, mode of delivery, intensity, duration, and implementation context (Bray, 2009).

With respect to small-group tutoring specifically, some large-scale studies have shown mixed results. Where programs have yielded statistically significant positive impacts, the magnitude of improvements in student academic performance have ranged from small to large (Heinrich et al., 2014). This variation points to the importance of carefully designing small-group tutoring programs. This short brief summarizes empirical evidence regarding the benefits of small-group tutoring programs in a variety of settings, highlighting features that are most associated with positive outcomes.

Program features associated with success

Careful review of the literature revealed how dimensions of program design can increase the likelihood of successfully addressing learning loss. Research points to underlying mechanisms that determine efficacy. These include:

tutor qualifications and training; program setting; duration and dosage; instructional strategies and lesson content; student grouping; building relationships among tutors and pupils; coordination with classroom teachers; attention to developing students' academic self-efficacy; and frequent, ongoing diagnostic assessment.

Tutor qualifications and training

Tutor qualifications and training represent an important factor in program success. In terms of qualifications, comparative meta-analyses have shown that programs using professional teachers generally yield larger student performance gains than programs using paraprofessionals, parents, adult volunteers, or peers (Cohen et al., 1982; Shanahan & Barr, 1995; Wasik & Slavin, 1993). A recent meta-analysis suggests that paraprofessionals are more effective than parents or other volunteers (Nickow et al., 2020).

However, programs with tutors who were not credentialed teachers or paraprofessionals have still shown positive results (Allen & Chavkin, 2004; Brown et al., 2005; Ehri et al., 2007; Elbaum et al., 2000; Shanahan, 1998). For example, a meta-analysis of 21 studies of programs using non-teacher volunteers (or other non-teacher tutors who received small stipends) showed positive impacts on students' decoding, oral fluency, and writing (though not overall reading comprehension or math skills) (Ritter et al., 2009).

Many programs use preservice teachers from local universities as tutors. This more financially sustainable approach can be effective in improving student academic performance (Chen et al., 2011; Cobb, 2001; Dawkins et al., 2009a, 2009b), particularly when tutoring experiences are aligned or integrated with coursework (Baker et al., 2006). For example, when tutoring programs are integrated with field-experience requirements, supervising university faculty can provide tutors with feedback that enhances the quality of tutoring sessions. In addition, preservice teachers may be more motivated to provide a high-quality tutoring experience than university students taking other courses of study (Baker et al., 2006). Partnership between tutoring organisations and university teacher preparation programs is mutually beneficial: supervised small-group tutoring experiences can enhance the skills and professionalism of preservice teachers (Dawkins et al., 2009b; Paquette & Laverick, 2017).

Regardless of whether tutors are credentialed teachers or have more minimal qualifications, it is important for programs to provide tutors with specialized training (Gordon, 2009), especially if they are volunteers (Harper & Schmidt, 2016). In Finland, which has one of the world's most successful tutoring programs, school-based tutors are secondary school graduates with one year of specialized university training (Grubb, 2007). For tutoring programs using a highly-structured curriculum, training is important for implementation fidelity, even when tutors are professional teachers (Mathes & Fuchs, 1994; Shanahan & Barr, 1995). Conducting regular fidelity checks to monitor implementation also contributes to program success (Harper & Schmidt, 2016; Miller, 2003). In the case of literacy tutoring by volunteers or university students, it is ideal to have a certified reading specialist supervise tutors (Wasik & Slavin, 1993).

Setting

Inconsistent attendance is a common issue limiting the efficacy of tutoring programs, particularly programs serving students whose families are navigating poverty (Shanahan, 1998). Program setting (e.g., during versus after school, on-campus versus at a library, community centre, or home) may ease or exacerbate attendance difficulties. Longitudinal results comparing settings found that home-based programs can circumvent attendance issues and help families learn to more effectively support their children's academic progress (Gordon, 2009; Gordon et al., 2007). It is plausible that online tutoring programs in which students participate from home may also offer some benefit in this regard.

With respect to tutoring attendance in the school setting, evidence is mixed. One review of programs found that being housed at the school helped with attendance (Fashola, 1998). However, Heinrich and colleagues (2014) noted in their review that programs based in U.S. schools experienced more attendance fluctuation than did programs located off-campus, perhaps due to competition with other on-campus after-school activities. One potential solution is having programs take place during the school day to avoid attendance issues after school (Malloch, 2003), but this runs the risk of interrupting beneficial instructional time. There is also a risk of stigmatizing students who receive tutoring support if they are pulled out of the classroom or assigned to an extra academic period. Older students may come to resent spending extra time in remedial programs and be less unmotivated as a

result (Baye et al., 2019). These risks may explain why the majority of successful tutoring programs evaluated in the literature take place after the school day ends (i.e., outside of regular instructional time).

For programs that must take place during the school day, rotating tutoring times over the course of the program can minimise risks associated with interrupting instructional time. In addition, coordinating tutoring materials with classroom instruction is essential for successfully augmenting learning while students miss classroom-based teaching (Wasik & Slavin, 1993). Evidence suggests that using an inclusion model, in which an intervention is delivered in the classroom during the literacy block, is more effective than other formats of program delivery during school hours (Baye et al., 2019).

Regardless of setting, the literature makes it clear that effective programs plan for supporting students who struggle with attendance (Hock et al., 2001) and maintaining communication with families. Regular communication and collaboration between tutors and classroom teachers is vital to success (Gordon, 2009; Gordon et al., 2007; Gordon et al., 2004; Malloch, 2003). Having tutors use a similar approach and materials as classroom teachers prevents struggling students from having to reconcile differences in instruction as they work to master new skills (Wasik, 1998). Further, it is especially important for out-of-school tutoring providers to be made aware of students' needs related to disability and/or language learning and for students to be matched with tutors with appropriate training (Heinrich et al., 2014).

Due to the coronavirus pandemic, it is possible that tutoring programs may be conducted online. Although there is little research concerning online tutoring involving human instructors – most involves automated systems or programs – there is some evidence that online programs can be efficacious. For example, a mixed-methods study found that a synchronous online tutoring program provided one-to-one in a virtual environment with chat and virtual whiteboard was associated with statistically significant gains in mathematics scores (Chappell et al., 2015). Other studies have also showed promising results from synchronous online tutoring (e.g., Chappell et al., 2011; Chen et al., 2011; Vasquez & Slocum, 2012).

Duration and dosage

Although research has consistently shown a strong relationship between hours of tutoring and effectiveness, many students do not get tutoring of sufficient duration to get substantial effects, largely because of the expense (Heinrich et al., 2014). Recommendations for a minimum threshold of tutoring hours vary from 30 hours (Gordon et al., 2004) to 40 hours (Heinrich et al., 2014; Jones, 2007) to 45 hours (Lauer et al., 2006). However, a shorter intervention can still be effective. For example, a randomised controlled trial of a 12-week small-group tutoring program in England found that participating students gained an additional three months of progress in maths and an additional two months in literacy (The Tutor Trust, 2019). To maximise the likelihood of success for a shorter intervention, it is likely ideal to schedule the sessions in a continuous stretch, such that term breaks would not interrupt instruction (King & Kasim, 2015)

In terms of deciding when to end a tutoring program, there is mixed evidence about whether and when extended tutoring loses efficacy and costs begin to exceed benefits. For example, Heinrich and colleagues (2014) found diminishing returns to literacy tutoring after 60 hours, but continued returns to additional mathematics tutoring through 80 hours (the longest program studied). In contrast, work on high-dosage tutoring in the United States found no diminishing of returns after 130 hours (Fryer & Howard-Noveck, 2020).

There do not appear to be any comparative studies addressing the ideal length of sessions or number of sessions per week. This scan of the literature suggested that the majority of successful interventions had sessions 45 to 60 minutes in length convened two to five times per week. Wasik (1998) recommended a minimum of 90 to 120 minutes per week for literacy tutoring. In general, effective tutoring programs offer frequent, consistent, and sustained interventions (Jun et al., 2010; Lauer et al., 2006; Miller, 2003).

Lesson structure and instructional strategies

Even when program provide a sufficient number of hours, the instructional time must be of high quality in order to improve student performance (Heinrich et al., 2014). Effective small-group tutoring has clearly designed programmatic purpose (Baker et al., 2006; Hock et al., 2001) and highly-

specified structure (Ritter et al., 2009). Structured and purposeful interventions have demonstrated stronger results than generic homework help, repetitive drill-based lessons, or assistance preparing for upcoming tests (Cohen et al., 1982; Gordon, 2009; Wasik & Slavin, 1993). In addition, the provision of constructive, corrective feedback to students throughout tutoring sessions is an essential factor in program success (Heinrich et al., 2014; Miller, 2003).

Many successful tutoring interventions use direct instructional methods and focus on phonics (D'Agostino & Harmey, 2016; Gilbert et al., 2013; Hempenstall, 2008; Jun et al., 2010; Penney, 2002; Slavin et al., 2011). However, struggling students also benefit from opportunities to engage with material in ways that require them to actively construct understanding and incorporate that understanding into their existing schema (i.e., through constructivist pedagogies) (Chi et al., 2001). For example, a constructivist approach to small-group tutoring in mathematics has been shown to improve students' performance on complex word problems and enhance use of problem-solving strategies (Fuchs et al., 2008; Jitendra et al., 2013). In another example, attending an inquiry-based remedial science program in Peru led to academic gains among participating students (Saavedra et al., 2019). Finally, developing metacognitive strategies for comprehension is important for adolescents readers (Harmon et al., 2005), and although literacy programs using a highly-explicit approach boost decoding and fluency, this approach may fall short in developing comprehension skills (Ritter et al., 2009).

Having tutors explicitly help students develop academic self-efficacy is another key way to enhance the impact of tutoring programs. Tutors can do this by emphasizing that success on lesson tasks results from effort and persistence (Margolis, 2005). Additionally, when tutors exhibit authentic belief in the capabilities of struggling students, this may further support the development of self-efficacy, which contributes to motivation (Rothman & Henderson, 2011).

Grouping and tutor assignment

Although studies have found one-to-one tutoring to be most impactful, small group interventions, which are more cost effective, are also quite effective (Harmon et al., 2005; Slavin et al., 2011; Zimmer et al., 2010). Smaller groups of two to four students tend to have greater impact on student learning than

larger groups (Baker et al., 2006; Buckingham et al., 2014; Vaughn et al., 2003). However, although higher efficacy has been demonstrated with smaller groups, it is still possible to obtain positive results with larger groups (Elbaum et al., 2000; Hempenstall, 2008; Merrell & Kasim, 2015). For example, a direct instruction phonics-based remedial reading program administered in groups of ten to over 100 students in five schools across Melbourne yielded large positive effects on a variety of literacy skills, including phonological awareness, word attack and spelling (Hempenstall, 2008). In addition to keeping groups small, tutoring programs can increase efficacy through homogeneous grouping – tutoring children at a similar skill level together (Zimmer et al., 2010).

Strong, caring relationships among tutors and their students likely contribute to likelihood of success (Cobb, 2000; Rothman & Henderson, 2011). Therefore, it is advantageous for children to be consistently assigned to the same tutor (Baker et al., 2006; Wasik, 1998). It is also important for tutors to engage their small-groups with a positive demeanour, listen actively to all members of the group, encourage participation from quiet students, and be knowledgeable about students' backgrounds (Cobb, 2000; Heinrich et al., 2014). For Aboriginal and Torres Strait Islander students, having tutors who are also Indigenous Australians, be they community elders or school educational workers, may enhance equity by providing students with culturally responsive and sustaining support that helps them thrive academically (Malloch, 2003).

Assessment

Frequent, ongoing assessment of student progress is an integral part of successful tutoring programs (Wasik, 1998). Frequent assessment helps tutors properly align instruction to students' level and instructional needs (Fuchs et al., 2011; Harper & Schmidt, 2016) and target gaps in understandings with remedial support (Zimmer et al., 2010). Further, such assessment can facilitate flexible, homogeneous grouping, in which children are periodically reassigned to new levelled groups.

Using a diagnostic approach to assessment can help tutors develop high-leverage teaching points for their lessons, appropriately scaffold lessons, and identify students who may need additional support from teachers trained to support students with disabilities or students learning English as a new language (Gordon et al., 2004). Scaffolding of tutoring instruction has been

associated with increased academic performance (Juel, 1996). In addition, it can be helpful to include monitoring of self-efficacy and motivation, as these factors are essential for student success (Margolis, 2005). Tutors can assess self-efficacy informally by observing the extent of students' cooperation, engagement, and task completion; more formal methods include having students complete rating scales or questionnaires at regular intervals (Margolis, 2005).

Content area and student age

Small-group tutoring has been shown to be effective for improving student achievement in literacy (Hudson et al., 2011; Nelson-Royes & Reglin, 2011), math (Fuchs et al., 2008), and science (Jitendra et al., 2013). In terms of which content area may be the highest leverage target for organisations with finite resources, many studies suggest that there may be greater potential for using small-group tutoring to improve achievement in math than in literacy (Cohen et al., 1982; Muñoz et al., 2012; Springer et al., 2014; Zimmer et al., 2010). However, some studies have found larger effect sizes for literacy tutoring. For example, Jun and colleagues' (2010) review of 12 studies of tutoring for adolescents found greater impact for reading instruction than for writing or other content. In addition, an analysis of data from the Trends in International Mathematics and Science Study (TIMSS) showed that the effect of tutoring on science performance was nearly twice as large in science than in math (Huang, 2013). Further, science tutoring led to higher gains for low-performing students whereas math tutoring benefitted high performers more.

Many of the interventions evaluated in the tutoring literature aim to support literacy in the early grades. This is likely related to widespread consensus that reading skills are the foundation for learning in later years of schooling (Buckingham et al., 2014; Hempenstall, 2008; Pinnell, 1988; Wasik & Slavin, 1993). Effect sizes tend to be higher for early grade programs, especially in literacy (Elbaum et al., 2000; Nickow et al., 2020), but tutoring programs can be effective at a variety of grade levels (Jun et al., 2010). In fact, some reviews of the research have found larger effect sizes for older students compared to those in the primary grades (Lauer et al., 2006; Shanahan, 1998).

References

- Allen, A., & Chavkin, N. F. (2004). New evidence that tutoring with community volunteers can help middle school students improve their academic achievement. *School Community Journal, 14*(2), 7-18.
- Baker, J. D., Rieg, S. A., & Clendaniel, T. (2006). An investigation of an after school math tutoring program: University tutors + elementary students = successful partnership. *Education, 127*(2).
- Baye, A., Slavin, R. E., Lake, C., Inns, A., & Haslam, J. (2019). *A quantitative synthesis of research on reading programmes for secondary students*. https://educationendowmentfoundation.org.uk/public/files/Reading_Programmes_for_Secondary_Students_Evidence_Review.pdf
- Bray, M. (2009). *Confronting the shadow education system: What government policies for what private tutoring?* UNESCO International Institute for Educational Planning.
- Brown, K. J., Morris, D., & Fields, M. (2005). Intervention after Grade 1: Serving increased numbers of struggling readers effectively. *Journal of Literacy Research, 37*(1), 61-94.
- Buckingham, J., Wheldall, K., & Beaman-Wheldall, R. (2014). Evaluation of a two-phase implementation of a tier 2 (small group) reading intervention for young low-progress readers. *Australasian Journal of Special Education, 38*(2), 169-185.
- Chappell, S., Arnold, P., Nunnery, J., & Grant, M. (2015). An examination of an online tutoring program's impact on low-achieving middle school students' mathematics achievement. *Online Learning, 19*(5), 37-53.
- Chappell, S., Nunnery, J., Pribesh, S., & Hager, J. (2011). A meta-analysis of supplemental educational services (SES) provider effects on student achievement. *Journal of Education for Students Placed at Risk, 16*(1), 1-23.
- Chen, C.-H., Liao, C.-H., Chen, Y.-C., & Lee, C.-F. (2011). The integration of synchronous communication technology into service learning for pre-

service teachers' online tutoring of middle school students. *The Internet and Higher Education*, 14(1), 27-33.

Chi, M. T., Siler, S. A., Jeong, H., Yamauchi, T., & Hausmann, R. G. (2001). Learning from human tutoring. *Cognitive science*, 25(4), 471-533.

Cobb, J. B. (2000). Listening within the social contexts of tutoring: Essential component of the mentoring relationship. *International Journal of Listening*, 14(1), 94-108.

Cobb, J. B. (2001). The effects of an early intervention program with preservice teachers as tutors on the reading achievement of primary grade at risk children. *Reading Horizons: A Journal of Literacy and Language Arts*, 41(3), 3.

Cohen, P. A., Kulik, J. A., & Kulik, C.-L. C. (1982). Educational outcomes of tutoring: A meta-analysis of findings. *American Educational Research Journal*, 19(2), 237-248.

D'Agostino, J. V., & Harmey, S. J. (2016). An international meta-analysis of Reading Recovery. *Journal of Education for Students Placed at Risk (JESPAR)*, 21(1), 29-46.

Dawkins, S., Ritz, M.-E., & Loudon, W. (2009a). Evaluating the practicability and sustainability of a reading intervention programme, using preservice teachers as trained volunteers. *Australian Journal of Language and Literacy*, 32(2), 136.

Dawkins, S., Ritz, M.-E., & Loudon, W. (2009b). Learning by doing: Preservice teachers as reading tutors. *Australian Journal of Teacher Education*, 34(2), 4.

Ehri, L. C., Dreyer, L. G., Flugman, B., & Gross, A. (2007). Reading rescue: An effective tutoring intervention model for language-minority students who are struggling readers in first grade. *American Educational Research Journal*, 44(2), 414-448.

Elbaum, B., Vaughn, S., Tejero Hughes, M., & Watson Moody, S. (2000). How effective are one-to-one tutoring programs in reading for elementary

students at risk for reading failure? A meta-analysis of the intervention research. *Journal of Educational Psychology*, 92(4), 605.

- Fashola, O. S. (1998). *Review of extended-day and after-school programs and their effectiveness. Report No. 24.* Center for Research on Education of Students Placed At Risk (CRESPAR), Johns Hopkins University.
- Flack, C. B., Walker, L., Bickerstaff, A., & Margetts, C. (2020). *Socioeconomic disparities in Australian schooling during the COVID-19 pandemic.* Pivot Professional Learning.
- Fryer, R. G., & Howard-Noveck, M. (2020). High-dosage tutoring and reading achievement: Evidence from New York City. *Journal of Labor Economics*, 38(2), 421-452.
- Fuchs, L. S., Fuchs, D., Craddock, C., Hollenbeck, K. N., Hamlett, C. L., & Schatschneider, C. (2008). Effects of small-group tutoring with and without validated classroom instruction on at-risk students' math problem solving: Are two tiers of prevention better than one? *Journal of Educational Psychology*, 100(3), 491.
- Fuchs, L. S., Powell, S. R., Seethaler, P. M., Cirina, P. T., Fletcher, J. M., Fuchs, D., & Hamlett, C. L. (2011). The development of arithmetic and word-problem skill among students with mathematics disability. In J. M. Kauffman & D. P. Hallahan (Eds.), *Handbook of special education* (pp. 703-715). Routledge.
- Gilbert, J. K., Compton, D. L., Fuchs, D., Fuchs, L. S., Bouton, B., Barquero, L. A., & Cho, E. (2013). Efficacy of a first-grade responsiveness-to-intervention prevention model for struggling readers. *Reading research quarterly*, 48(2), 135-154.
- Gordon, E. E. (2009). 5 Ways to improve tutoring programs. *Phi Delta Kappan*, 90(6), 440-445.
- Gordon, E. E., Morgan, R. R., O'Malley, C. J., & Ponticell, J. (2007). *The tutoring revolution: Applying research for best practices, policy implications, and student achievement.* Rowman & Littlefield.

- Gordon, E. E., Morgan, R. R., Ponticell, J., & O'Malley, C. J. (2004). Tutoring solutions for No Child Left Behind: Research, practice and policy implications. *NASSP Bulletin*, 88(56-68).
- Grubb, W. N. (2007). Dynamic inequality and intervention: Lessons from a small country. *Phi Delta Kappan*, 89(2), 105-114.
- Harmon, J. M., Keehn, S., & Kenney, M. S. (2005). Tutoring struggling adolescent readers: A program investigation. *Reading Research and Instruction*, 44(2), 46-74.
- Harper, J., & Schmidt, F. (2016). Effectiveness of a group-based academic tutoring program for children in foster care: A randomized controlled trial. *Children and Youth Services Review*, 67, 238-246.
- Heinrich, C. J., Burch, P., Good, A., Acosta, R., Cheng, H., Dillender, M., Kirshbaum, C., Nisar, H., & Stewart, M. (2014). Improving the implementation and effectiveness of out-of-school-time tutoring. *Journal of Policy Analysis and Management*, 33(2), 471-494.
- Hempenstall, K. (2008). Corrective reading: An evidence-based remedial reading intervention. *Australasian Journal of Special Education*, 32(1), 23-54.
- Hock, M. F., Pulvers, K. A., Deshler, D. D., & Schumaker, J. B. (2001). The effects of an after-school tutoring program on the academic performance of at-risk students and students with LD. *Remedial and special education*, 22(3), 172-186.
- Huang, M.-H. (2013). After-school tutoring and the distribution of student performance. *Comparative Education Review*, 57(4), 689-710.
- Hudson, R. F., Isakson, C., Richman, T., Lane, H. B., & Arriaza-Allen, S. (2011). An examination of a small-group decoding intervention for struggling readers: Comparing accuracy and automaticity criteria. *Learning Disabilities Research & Practice*, 26(1), 15-27.

- Jitendra, A. K., Rodriguez, M., Kanive, R., Huang, J.-P., Church, C., Corroy, K. A., & Zaslofsky, A. (2013). Impact of small-group tutoring interventions on the mathematical problem solving and achievement of third-grade students with mathematics difficulties. *Learning disability quarterly*, 36(1), 21-35.
- Jones, C. J. (2007). *The 2007 Supplemental Educational Services Program: Year 4 Summative Evaluation*. Office of Research, Evaluation and Accountability, Chicago Public Schools.
- Juel, C. (1996). What makes literacy tutoring effective? *Reading research quarterly*, 31(3), 268-289.
- Jun, S., Ramirez, G., & Cumming, A. (2010). Tutoring adolescents in literacy: A meta-analysis. *McGill Journal of Education/Revue des sciences de l'éducation de McGill*, 45(2), 219-238.
- King, B., & Kasim, A. (2015). *Rapid Phonics: Evaluation report and executive summary*.
- Kuhfeld, M., & Tarasawa, B. (2020). *The COVID-19 slide: What summer learning loss can tell us about the potential impact of school closures on student academic achievement*. NWEA.
https://www.nwea.org/content/uploads/2020/05/CollaborativeBrief_COVID19-Slide-APR20.pdf
- Lauer, P. A., Akiba, M., Wilkerson, S. B., Apthorp, H. S., Snow, D., & Martin-Glenn, M. L. (2006). Out-of-school-time programs: A meta-analysis of effects for at-risk students. *Review of Educational Research*, 76(2), 275-313.
- Malloch, A. J. (2003). Teacher and tutor complementation during an in-class tutorial program for Indigenous students in a primary school. In S. McGinty (Ed.), *Sharing Success: An Indigenous Perspective. Papers from the second national Australian Indigenous Education Conference*. Common Ground Publishing.
- Margolis, H. (2005). Increasing struggling learners' self-efficacy: What tutors can do and say. *Mentoring & Tutoring: Partnership in Learning*, 13(2), 221-238.

- Mathes, P. G., & Fuchs, L. S. (1994). The efficacy of peer tutoring in reading for students with mild disabilities: A best-evidence synthesis. *School Psychology Review*, 23(1), 59-80.
- Merrell, C., & Kasim, A. (2015). *Butterfly Phonics: Evaluation report and executive summary*.
- Miller, S. D. (2003). Partners-in-reading: Using classroom assistants to provide tutorial assistance to struggling first-grade readers. *Journal of Education for Students Placed at Risk*, 8(3), 333-349.
- Muñoz, M. A., Chang, F., & Ross, S. M. (2012). No Child Left Behind and tutoring in reading and mathematics: Impact of Supplemental Educational Services on large scale assessment. *Journal of Education for Students Placed at Risk (JESPAR)*, 17(3), 186-200.
- Nelson-Royes, A. M., & Reglin, G. L. (2011). After-school tutoring for reading achievement and urban middle school students. *Reading Improvement*, 48(3).
- Nickow, A. J., Oreopoulos, P., & Quan, V. (2020). *The impressive effects of tutoring on PreK-12 learning: A systematic review and meta-analysis of the experimental evidence (EdWorkingPaper: 20-267)*. Annenberg Institute at Brown University. <https://doi.org/10.26300/eh0c-pc52>
- Paquette, K. R., & Laverick, D. M. (2017). Enhancing preservice teachers' skillsets and professionalism through literacy tutoring experiences. *Reading Improvement*, 54(2), 56-66.
- Penney, C. G. (2002). Teaching decoding skills to poor readers in high school. *Journal of Literacy Research*, 34(1), 99-118.
- Pinnell, G. S. (1988). Reading Recovery: Early intervention for at-risk first graders. ERS Monograph.
- Ritter, G. W., Barnett, J. H., Denny, G. S., & Albin, G. R. (2009). The effectiveness of volunteer tutoring programs for elementary and middle school students: A meta-analysis. *Review of Educational Research*, 79(1), 3-38.

- Rothman, T., & Henderson, M. (2011). Do school-based tutoring programs significantly improve student performance on standardized tests? *RMLE online*, 34(6), 1-10.
- Saavedra, J. E., Näslund-Hadley, E., & Alfonso, M. (2019). Remedial inquiry-based science education: Experimental evidence From Peru. *Educational Evaluation and Policy Analysis*, 41(4), 483-509.
- Sahlberg, P. (2020). Will the pandemic change schools? *Journal of Professional Capital and Community*.
- Shanahan, T. (1998). Chapter 6: On the effectiveness and limitations of tutoring in reading. *Review of Research in Education*, 23(1), 217-234.
- Shanahan, T., & Barr, R. (1995). Reading Recovery: An independent evaluation of the effects of an early instructional intervention for at-risk learners. *Reading research quarterly*, 30(4), 958-997.
- Slavin, R. E., Lake, C., Davis, S., & Madden, N. A. (2011). Effective programs for struggling readers: A best-evidence synthesis. *Educational Research Review*, 6(1), 1-26.
- Sonneman, J., & Goss, P. (2020). *COVID catch-up: Helping disadvantaged students close the equity gap*. Grattan Institute.
- Springer, M. G., Pepper, M. J., & Ghosh-Dastidar, B. (2014). Supplemental educational services and student test score gains: Evidence from a large, urban school district. *Journal of Education Finance*, 39(4), 370-403.
- The Tutor Trust. (2019). *Our impact 2019*. Author. <https://www.paperturn-view.com/uk/the-tutor-trust/the-tutor-trust-impact-report-2019?pid=Njc67195>
- Vasquez, E., & Slocum, T. A. (2012). Evaluation of synchronous online tutoring for students at risk of reading failure. *Exceptional Children*, 78(2), 221-235.

- Vaughn, S., Linan-Thompson, S., Kouzekanani, K., Pedrotty Bryant, D., Dickson, S., & Blozis, S. A. (2003). Reading instruction grouping for students with reading difficulties. *Remedial and special education, 24*(5), 301-315.
- Wasik, B. A. (1998). Using volunteers as reading tutors: Guidelines for successful practices. *The Reading Teacher, 51*(7), 562-570.
- Wasik, B. A., & Slavin, R. E. (1993). Preventing early reading failure with one-to-one tutoring: A review of five programs. *Reading research quarterly, 179-200*.
- Wilson, R., McGrath-Champ, S., & Mude, W. (2020). *Preliminary results from a survey of remote learning arrangements during COVID-19* [Unpublished paper]. University of Sydney.
- Zimmer, R., Hamilton, L., & Christina, R. (2010). After-school tutoring in the context of no child left behind: Effectiveness of two programs in the Pittsburgh public schools. *Economics of Education Review, 29*(1), 18-28.