

EVIDENCE THAT TUTORING WORKS

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Research has consistently shown that well-designed tutoring programs that use volunteers and other nonprofessionals as tutors can be effective in improving children's reading skills. Students with below-average reading skills who are tutored by volunteers show significant gains in reading skills when compared with similar students who do not receive tutoring from a high-quality tutoring program. Peer or cross-age tutors also show gains in reading skills. Students who are tutored (henceforth "tutees") and tutors, in the case of peer or cross-age tutors, often demonstrate higher self-esteem and positive attitudes toward school. Among the features of tutoring programs associated with the most positive gains are extensive training for tutors, formal time commitments by tutors, structured tutoring sessions, careful monitoring of tutoring services, and close relationships between classroom instruction and curriculum and the tutoring services provided. Students with severe learning disabilities require special tutoring services, which can be provided by professionals, combined with nonprofessionals under careful supervision.

WHAT THE RESEARCH SHOWS ABOUT TUTORING

1. **Tutoring programs that incorporate research-based elements produce improvements in reading achievement.**

A meta-analysis of 29 studies of supplemental, adult-instructed, one-to-one-reading interventions for elementary school students at risk of reading failure was conducted and showed interventions that used trained volunteers or college students, were highly effective [Elbaum, B., Vaughn, S., Hughes, M.T., and Moody, S.W. (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, 605-619.]

A meta-analysis of 65 published studies that used rigorous evaluation methods to evaluate high-quality tutoring programs found positive, though modest, achievement effects across all of the studies. [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, 237-248.]

An Oregon tutoring program that included two weekly 30-minute sessions, led to increases in words per minute read aloud from 45 to 61.5 by the end of second grade, and increases from 77 words to 91 words by the end of the third grade. [Gersten and Baker, 2000.]

A British tutoring program involving 2,372 elementary and junior high students who were tutored by trained parents and peers for an average of 8.6 weeks improved their reading comprehension 4.4 times the normal rate and word recognition 3.3 times the normal rate. Four months after the end of tutoring, the average tutee was still improving at twice the normal rate in both comprehension and word recognition. [Topping, K., &

Whitley, M. (1990). *Participant evaluation of parent-tutored and peer-tutored projects in reading*. *Educational Research*, 32(1), 14-32.]

Two tutoring programs in Dade County, Florida, that trained cross-age and adult volunteer tutors to work with elementary school students found that tutees outperformed a randomly assigned control group of students who were not tutored. [Madden, N.A., & Slavin, R.E. (1989). *Effective pullout programs for students at risk*. In *Effective Programs for Students At Risk*, R.E. Slavin, N. L. Karweit, and N.A. Madden, eds. Boston: Allyn and Bacon.]

An after-school tutoring program in which low-achieving second- and third-graders were tutored for one hour twice each week by university students, retirees, and suburban mothers also generated strong improvements in the tutees' reading skills. Two reading specialists selected the children for tutoring, recruited and trained the tutors, and monitored the tutoring sessions. In each of two years, the tutored group outperformed a closely matched comparison group on word recognition, passage reading accuracy, and spelling. Fifty percent of the tutored children made a full year's gain in reading while only 20% of the comparison group children did. [Morris, D., Shaw, B., & Perney, J. (1990, November). *Helping low readers in Grades 2 and 3: An after-school volunteer tutoring program*. *Elementary School Journal*, 91, 133-150].

Other studies have shown that carefully crafted peer, cross-age, and adult tutoring services can improve reading achievement among disadvantaged, mildly disabled, and limited-English-proficient students. [Bender, D.S., Giovanis, G., & Mazzoni, M. (1994). *After-school tutoring program*. Paper presented at the Annual Conference of the National Middle School Association; Warger, C. L. (1991). *Peer tutoring: When working together is better than working alone*. Reston, VA: Council for Exceptional Children.

2. Tutoring can also lead to improvements in self-confidence about reading, motivation for reading, and behavior, both among tutees and among peer or cross-age tutors.

The Partners for Valued Youth employed at-risk middle school students with limited-English-proficiency to tutor low-achieving elementary school students for four hours every week. After participating in the program, tutors had lower dropout and absentee rates and higher self-concept scores than a randomly selected control group. Tutees also experienced improved reading scores, lower absentee rates, and fewer disciplinary referrals. [Robledo, M. del R. (1990). *Partners for valued youth: Dropout prevention strategies for at-risk language minority students*. Washington, DC: US Department of Education.]

Surveys of targeted groups of students who are tutored in reading have shown positive results for students' self-confidence as readers, motivation to read, and views of their control over their reading abilities. [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, 237-248; Lepper, M.R., & Chabay, R.W. (1988). *Socializing the*

intelligent tutor: Bringing empathy to computer tutors. *New York: Springer-Verlag; Topping, K., & Whitely, M. (1990). Participant evaluation of parent-tutored and peer-tutored projects in reading. Educational Research, 32(1), 14-32; Merrill, D.C., et al. (1995). Tutoring: Guided learning by doing. Cognition and Instruction, 13(3), 315-372.]*

WHAT RESEARCH SAYS ABOUT HIGH-QUALITY IMPLEMENTATION

Researchers who have examined multiple tutoring programs generally agree on the factors that generate the most consistent positive achievement for tutees. Six such factors are:

1. Close coordination with the classroom or reading teacher

When tutoring is coordinated with good classroom reading practices, students perform better than when tutoring is unrelated to classroom instruction. [*Venezky, R. L., & Jain, R. (1996). Tutoring for reading improvement: A background paper; Reisner, Petry, & Armitage, 1990; Jenkins & Jenkins, 1987.*]

2. Intensive and ongoing training for tutors

Tutees whose tutors participated in ongoing, intensive training throughout their participation in a Dade County tutoring program outperformed tutees whose tutors did not complete the ongoing training sessions. [*Wasik, B. A., & Slavin, R. E. (1993). Preventing early reading failure with one-to-one tutoring: A review of five programs. Reading Research Quarterly, pp. 179-200.*]

A review of college-based tutoring programs that recruit college students to tutor younger children concluded that tutor training was a key to project success. [*Reisner, E.R., Petry, C. A., & Armitage, M. (1990). A review of programs involving college students as tutors or mentors in grades K-12. Washington, D.C.: U.S. Department of Education.*]

The importance of tutor training is reinforced by several other studies, which provide specific advice on the types of training that yield the best results. Jenkins & Jenkins (1985) point to the importance of training in interpersonal skills so tutors do not become impatient with tutees. Warger (1991) says training should include strategies for reinforcing correct responses and properly correcting incorrect responses. [*Jenkins, J. R., & Jenkins, L. M. Making peer tutoring work. (1987, March). Educational Leadership, pp. 64-68; Warger, C. L. (1991). Peer tutoring: When working together is better than working alone. Reston, VA: Council for Exceptional Children.*]

3. Well-structured tutoring sessions in which the content and delivery of instruction is carefully scripted

In their meta-analysis, Cohen, Kulik, and Kulik found that structured tutorial programs demonstrated higher achievement gains than unstructured programs. Wasik and Slavin

(1993) reached similar conclusions when they examined five successful tutoring programs. [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, 237-248; Wasik, B. A., & Slavin, R. E. (1993, Spring). *Preventing early reading failure with one-to-one tutoring: A review of five programs*. Reading Research Quarterly, pp. 179-200.]

In a study of the use of tutorial scripts in teaching mathematics, McArthur, Stasz and Zmuidzinas found that the most successful tutors often have well-rehearsed scripts for responding to student errors. The results are general enough to apply to reading also. [McArthur, D., Stasz, C., & Zmuidzinas, M. (1990). *Tutoring techniques in algebra*. Cognition and Instruction, 7, 197-244.]

4. Careful monitoring and reinforcement of progress

A recent study of tutoring for 30 first-graders at risk for reading failure reported that successful tutor-tutee relationships were characterized by strong reinforcement of progress, a high number of reading and writing experiences in which the student moved from being fully supported to working independently, and explicit demonstration of appropriate reading and writing processes. [Juel, C. (1996). *What makes literacy tutoring effective?* Reading Research Quarterly, 31(3), 268-289.]

5. Frequent and regular tutoring sessions, with each session between 10 and 60 minutes daily. More sessions a week result in greater gains.

Rigorous evaluations of tutoring programs reported positive results for programs whose tutoring sessions ran from 10 to 60 minutes in length, although longer sessions did not necessarily result in better outcomes. [Brailsford, A. (1991). Paired Reading: Positive reading practice. Kelowna, British Columbia: Filmwest Associates 1991; Warger, 1991; Robledo, 1990; Jenkins & Jenkins, 1985]

Tutoring programs in which tutors met with tutees at least three times a week were more likely to generate positive achievement for tutees than programs in which tutors and tutees met twice a week. [Reisner, Petry, & Armitage, 1990]

6. Specially designed interventions for the 17 to 20 percent of children with severe reading difficulties.

The most important strategies for improving early reading instruction and learning have been identified as creating an appreciation of the written work, developing an awareness of printed language and the writing system, teaching the alphabet, developing students' phonological awareness, developing phonemic awareness, teaching the relationship of sounds and letters, teaching children how to sound out words, teaching children to spell words, and helping children to develop fluent, reflective reading. [Kameenui, Adams, and Lyon (1996). *Learning to Read/Reading to Learn (1996)*. U. S. Department of Education, Washington, D.C.]

Trained volunteers under careful supervision from reading or resource teachers have proved to be effective instructors for learning disabled and other students with disabilities [Azcoitia, 1989; Madden & Slavin, 1989].

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