Sylvan Learning Center Tutoring Research

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Tutoring is a time-honored, research-based method of helping students succeed in their academic tasks. To optimize learning, the apprentice is tutored by the master craftsman, the novice is tutored by the experienced practitioner, and increasingly, the student in school is tutored by a teacher or other accomplished individual during school or after school hours.

Today, parents, teachers, and the public at-large are keenly interested in the success of **every** student. Each family is keenly interested in the success of **every** child in the family. One increasingly popular option to enhance the skills and knowledge of each learner is actually an old one: tutoring.

What is it that makes tutoring so appealing and so successful? What is it that makes some tutoring more effective than other forms? Finally, what is it that makes the foundation of tutoring at Sylvan Learning Centers so highly successful for students?

THE GROWTH OF TUTORING

Tutoring is as old, at least, as Plato and Aristotle. As we know from their prolific writings, that pair found tutoring a highly successful and engaging process! Today, tutoring has taken on more of a mass appeal, and the practices that make tutoring so effective have been more scientifically studied and replicated.

• Tutoring in one form or another has existed for well over 1,000 years (Osguthorpe & Scruggs, 1986). Still, tutoring systems (i.e., arrangements that provide formal guidelines for selecting formats, conducting training, arranging student pairings, implementing

best practice procedures, and evaluating strategies regularly and systematically) are a recent phenomenon (Miller, Barbetta, & Heron, 1994)... Development of these systematic approaches can be traced to field-based studies showing the beneficial effects of tutoring on traditional academic subject areas such as math... reading...Spanish vocabulary... English as a second language...spelling...and other academic skills" (Heron, Welsh, & Goddard, 2003, p.288).

• In popular press like Newsweek magazine, the solution to many parents' dissatisfaction with the children' learning progress is for them to hire tutors to provide extra instruction for their children (Adler, 1998)

Tutoring has advanced into the mainstream of American education. This progression has happened based on sound research and the success stories of innumerable learners.

WHY IS TUTORING EFFECTIVE?

Over the last twenty-five years, the impact of tutoring efforts has been extensively studied. At first, educational researchers tried to determine if tutoring was successful at all in increasing student achievement. When study after study showed this was the case, newer research often focused on the effects of tutoring under various conditions to judge its effectiveness: with different subject areas, with different people providing the tutoring (teachers, volunteers, other students, etc.), and with different degrees of structure in the materials used and training given to the tutors.

- "Because it gears instruction to needs, tutoring has yielded large learning effects in several dozen studies" (Cawelti, ed., 1995, p.15).
- "Many tutoring programs have been developed to address the needs of children at risk, and research has shown that these programs are typically beneficial" (Rimm-Kaufman, Kagan, & Byers, 1999, p. 143).
- "The effect size reports how many standard deviations the average score in the experimental group (the group that uses the instructional strategy) is above the average score in the control group (the group that did not use the instructional strategy). To illustrate,...tutoring has an average effect size (based on 125 studies examined by Hattie, 1992) of .50. Everything else being equal, the typical student who receives tutoring will obtain achievement scores .50 standard deviations higher than the typical student who does not receive tutoring. This translates into a 19 percentile point gain" (Marzano, 2003, p.80).

- "In their report on the findings from the National Study of Developmental Education, Boylan, Bliss, Conham, and Saxon (1995) concluded that the literature suggests that tutoring has consistently been found to have a positive impact on retention, final grades in tutored courses, course completion, and graduation rates" (Rheinheimer, 2000, p. 11).

- "Even with excellent instruction, many children fail to make adequate progress in reading....Tutoring can be a significant supplement, enhancement... for classroom reading instruction" (Snow, Burns, & Griffin, 1998).
- Many researchers have reported on improvements in student achievement with skills like reading decoding and comprehension. They performed higher than matched control group students only receiving direct instruction and not receiving tutoring. This held true for the long term, with gains made in testing after both the first and third grades (McCarthy, Newby, & Recht, 1995; Madden, Slavin, Karweit, Dolan, & Wasik, 1991; Simmons, Fuchs, Fuchs, Mathes, & Hodge, 1995).
- "One-to-one instruction, provided as a supplement to classroom teaching, is generally considered to be the most effective way of increasing students' achievement. The effectiveness of one-to-one instruction has been validated by empirical research, especially for students who are considered at risk for school failure or have been identified as having reading or learning disabilities (Bloom, 1984; Jenkins, Mayhall, Peschka, & Jenkins, 1974; Juel, 1991; Wasik & Slavin, 1993)" (cited in Elbaum, Vaughn, Hughes, & Moody, 2000, p. 605).
- In more recent years, educators and researchers have expanded studies to determine specific effects of tutoring in a variety of subject areas and with varying age groups of students. These studies have continued to validate the power of tutoring. For example, Fueyo and Bushell (1998, p. 424) conclude, "Tutoring with systematic number line procedures and feedback was effective in training first-grade students to compute missing addend problems...but no comparable increase was noted for the untutored children." Another study of college students by House and Wolt (1990) "found that the GPA's of academically underprepared African-American males were significantly lower than their Asian or Caucasian counterparts, but further research showed this effect to be due to participation in tutoring over 2 semesters by the Asian and Caucasian males" (Rheinheimer, 2000, p. 11).

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WHAT IS THE SYLVAN ADVANTAGE IN TUTORING?

It's 4:00 p.m. and the air is beginning to hold a chill. The school year began over two months ago – now students and parents frustrated with a lack of achievement this year are enrolling at Sylvan. This afternoon, students, munching a quick snack, enter for their tutoring session.

The tutor greets the students. She's a teacher with a degree in elementary education, six years of experience, and an interest in working with students she can motivate as they see the progress they make during each session. She knows that students' confidence rises as they see their skills grow. She opens her curriculum program manual and three pairs of eyes await their specific directions for the session. Perhaps the students would be studying the same subject, but more likely, as is the case today, each child is ready to continue his or her progress in various content areas. While the tutor begins introducing long division procedures to the first child, the second works on phonics word attack skills, and the third answers comprehension questions from a non-fiction passage. In turn, as the tutor focuses individualized and direct instruction for each of her three students, the other two in her charge engage in guided practice and independent application – vital features to internalizing and transferring skills and concepts successfully.

After an hour has passed, the tutor has spent concentrated time with each child. She's also given immediate feedback and encouragement to the students as she has tutored each one in turn while monitoring the practice of the others. At regularly scheduled intervals every few sessions, students take structured assessments so that they and their parents clearly understand the progress each child is making.

The power of the Sylvan Learning Centers is their success – one student at a time.

HIRING AND TRAINING OF TUTORS

How is the tutoring at Sylvan Learning Centers based on effective tutoring research? The following factors contribute to their success:

1. hiring certified teachers in the reading and writing areas and hiring certified teachers or math majors in math tutoring positions to create a highly qualified staff
2. hiring experienced teachers
3. requiring tutors to demonstrate content knowledge in their field by receiving training and passing a stringent test for each instructional program they will be tutoring
4. basing the structured curriculum for tutoring on national standards published by the National Reading Panel, the National Council of Teachers of English, and the National Council of Teachers of Mathematics to align with state standards and tests
5. assessing students' knowledge and skills before beginning the tutoring program and at ongoing intervals until students demonstrate mastery of the targeted areas
6. requiring ongoing communication with parents to note student progress after each 12 hours of tutoring students receive
7. requiring tutors to communicate with teachers at students' home schools to ensure a match between student needs and the tutoring focus
8. training Sylvan teachers in the structured tutoring curriculum for each subject area, based on the specific skills and content deficits students demonstrate on thorough assessment instruments
9. supervising tutors as they work through observations by Directors of Education, instructional leaders (the

equivalent of a principal or a department chairman) at each Sylvan Learning Center, to give ongoing feedback and improvement suggestions

Sylvan's model of hiring, training, and supervising their tutors aligns with the research on effective tutoring practices.

- "Classroom teachers identify adult-delivered one-to-one instruction as the ideal teaching practice but report that they are rarely able to implement it in their classrooms (Moody, Vaughn, & Schumm, 1997)" (cited in Elbaum, Vaughn, Hughes, & Moody, 2000, p. 606).
- "Tutors can provide the kind of critical instruction that spells the difference between success and failure for some children, but the tutors must receive considerable training, support, and supervision" (Vadasy, Jenkins, & Pool, 2000, p. 587-588).
- "Variables related to the intervention can affect not only its effectiveness but also its cost. These variables include the expertise of the individuals who implement the program, the training they undergo before beginning the intervention, the frequency of tutoring sessions, and the total hours of instruction provided to each student" (Elbaum, Vaughn, Hughes, & Moody, 2000, p. 606).
- "A comparison of the efficacy of ...programs reveals two facts. First, programs with more comprehensive models of reading are the most effective. Second, programs that use certified teachers are more effective than those using paraprofessionals (Wasik & Slavin, 1993)" (cited in Rimm-Kaufman, Kagan, & Byers, 1999, p. 143).
- "First, one-to-one tutoring is an extremely effective form of instruction, the primary drawback being the high cost. Second, programs that used certified teachers as tutors appeared to have substantially larger effects than those that used paraprofessionals.

Furthermore, in the programs that used paraprofessionals effectively to help children learn to read, the paraprofessionals were highly trained, and the program was highly structured, with specific tutors' manuals, student materials, and training procedures" (Wasik, 1997, p. 283).
- "From research on tutoring programs involving certified teachers, paraprofessionals, and cross-age tutors, the following factors have been found to be important 4 for success: 1) a certified teacher, trained as a reading specialist, who facilitates the program; 2) continuous feedback to the tutors on their tutoring sessions; 3) high-quality training; and 4) structured tutoring sessions" (Wasik, 1997, p. 286)
- "The success of a tutoring program like ours depends as much or more on the selection, training, and supervision of tutors as it does on the design of lesson contents. Selection of tutors who are motivated to make a significant difference in the lives of young students, and who can be trained to deliver instruction dependably and with care is critical. In addition, a successful tutoring program requires regular monitoring of tutors and students" (Vadasy, Jenkins, Antil, Wayne, & O'Connor, 1997, p. 134).

CREATING AN EFFECTIVE INSTRUCTIONAL MODEL

Sylvan tutoring involves the "gradual release of responsibility"—tutors move from direct instruction with students to guiding their practice with the concepts. Then they ask students to do some independent practice before they assess the students' skills and knowledge in an area. Finally, tutors test for mastery of the students' tutored skills and knowledge. Throughout this process, tutors provide support and feedback to students.

- "Feedback seems to work well in so many situations that it led researcher John Hattie (1992) to make the following comment after analyzing almost 8,000 studies: The most powerful single modification that enhances achievement is feedback. The simplest pre- scription for improving education must be 'dollops of feedback' (p.9)." (Marzano, Pickering, & Pollock, 2001, p.96).

- "Effective practice is not an unthinking execution of a set of steps or rote memorization. Effective practice involved a 'shaping' of the process as originally learned (Anderson, 1982, 1983; Fitts & Posner, 1967). This requires a great deal of reasoning about the process and even trial and error to determine process modifications" (Marzano, 2003, p. 116).

- "We encourage teachers to deliver instruction using the gradual release of responsibility approach. Staff developer Laura Benson visualizes gradual release in terms of learning to ride a bike. First, the child watches the adult ride a bike, which parallels the teacher's doing the activity alone while the students watch. Next, the child rides the bike with training wheels, a metaphor for guided practice in pairs or small groups. Finally, the happy five-year-old sheds the training wheels and cruises down the street, illustrating how children perform the task independently and apply it in new situations (Harvey 1998)" (Harvey & Goudvis, 2000, p.13).

CREATING INDEPENDENT LEARNERS

A unique feature of Sylvan Learning Centers' success in tutoring is based on the structure of their tutoring environments. Sylvan's tutoring model is based on "sequential individualized tutoring," delivered at a U-shaped table with no more than three students. As the tutor works with an individual student, she naturally gives that student her undivided attention, providing direct instruction and constantly guiding the child.

The structured sequential tutoring model that Sylvan Learning Center employs in their tutoring sessions reinforces independent learning as the tutor moves her undivided attention from one individual student to another. While the first student is receiving direct instruction, the second and third are engaged in guided or independent practice. In this model, students learn and practice their skills, then receive feedback and more direct instruction to correct and improve their performance. They do not become reliant on the constant affirmations or suggestions of a tutor, but rather learn to learn independently as they work through problems or read text.

Finally, research supports Sylvan Learning's choice to structure tutoring sessions with up to three students to be more cost-effective to parents and still highly effective for students. Research supports the efficiency of "small tutoring groups;" these groups provide peer modeling opportunities that an individual tutoring session with one student and a tutor cannot. When students work independently within a shared environment, particularly when they share similar tutoring needs, positive peer modeling of effective thinking and learning can occur. As students practice their own assignments, they hear the tutor's comment and another students' reflections on understandings and misconceptions of a concept that can provide insights into their own thinking processes.

- "There is considerable support, both anecdotal and empirical, for the idea that 'practice makes perfect,' or, in its less extreme form, that 'practice makes better' (Bryan & Harter, 1899; Newell & Rosenbloom, 1981; Schneider & Shiffrin, 1977; Shiffrin & Schneider, 1977). The historical foundation for contemporary research on this topic was established by Thorndike's (1898) investigations at the turn of the century into the effects of practice with feedback. More recently,

Anderson (1993) provided compelling evidence for the conclusion that 'students achieve at higher levels if they solve more problems, whatever the regimen' (p. 160). The common conclusion across all of this work, oversimplified, is that the more often people per- form a task, the more accurate and faster they become" (Shute, Gawlick, & Gluck, 1998, p. 296).

In other words, lots of practice, like Sylvan students get when their tutor is focusing on the next student in the group, facilitates learning. That practice, with delayed feedback while the student grapples with concepts to understand them more fully, can actually facilitate the student gaining a more thorough grasp of the skills and knowledge. The student is then able to use these new learning skills in other situations on his or her own.

CONCLUSION

Tutoring is clearly an effective way to increase student achievement. The Sylvan model of tutoring uses highly qualified staff, structured curriculum, effective instruction, and a tutoring environment that provides effective and economical instruction. Based on solid research of the key factors that promote effective tutoring and years of practical results in the tutoring field, Sylvan Learning Center has designed a very viable option for parents interested in increasing the academic success of their children.

REFERENCES

Adler, J. (1998, March 30). The tutor age. Newsweek, 46-56. Allsopp, D.H. (1997). Using classwide peer tutoring to teach beginning algebra problem-solving skills in heterogeneous classrooms. Remedial and Special Education, 18, 367-379.

Anderson, J.R. (1982). Acquisition of cognitive skills. Psychological Review, 89, 369-406.

Anderson, J.R. (1983). The architecture of cognition. Cambridge, MA: Harvard University Press.

Anderson, J.R. (1993). Rules of the mind. Mahwah, NJ: Erlbaum.

Arreaga-Mayer, C. (1998). Increasing active student responding and improving academic performance through classwide peer tutoring. Intervention in School and Clinic, 3, 89-94, 117.

Barbetta, P.M., Miller, A.D., Peters, M.T., Heron, T.E., & Cochran, L.L. (1991). TUGMATE: A cross-age tutoring program to teach sight vocabulary. Education and Treatment of Children, 14, 19-37.

Bar-Eli, M., Gershon, T., & Forlin, C. (1998). The tutoring process and its manifestation in the classroom behavior of tutors and tutees. British Educational Research Journal. 24(3), 283-301.

Byran, W.L. & Harter, N. (1899). Studies on the telegraphic language: The acquisition of a hierarchy of habits. Psychological Review, 6, 345-375.

Cawelti, G. (Ed.) (1995). Tutoring. Handbook of Research on Improving Student Achievement. Arlington, VA: Educational Research Service.

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

Cooke, N.L., Heron, T.E., & Heward, W.L. (1983). Peer tutoring: implementing classwide programs in the primary grades. Columbus, OH: Special Press.

Denton, C.A. & Mathes, P.G. (2003). Intervention for struggling readers: Possibilities and challenges. In B. Foorman (Ed.), Preventing and Remediating Reading Difficulties. Baltimore, MD: York Press.

Educational Research Service (ed.). (2001). No Child Left Behind. Arlington, VA: Educational Research Service.

Ehly, S.W. (1980). Peer tutoring for individualized instruction. Boston, MA: Allyn and Bacon.

Ehri, L.C., Nunes, S.R., Stahl, S.A., & Willows, D.M. (2001). Systematic phonics instruction helps students learn to read: Evidence from the national reading panel's meta-analysis. Review of Educational Research. 71(3), 393-447.

Elbaum, B., Vaughn, S., Hughes, M.T., & Moody, S.W. (1999). Grouping practices and reading outcomes for students with disabilities. Exceptional Children, 65, 399-415.

Elbaum, B., Vaughn, S., Hughes, M.T., & 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(4), 650-619.

Ezell, H.K., Kohler, R.W., & Strain, P. (1994). A program description of evaluation of academic peer tutoring for reading skills of children with special needs. Education and Treatment of Children, 17, 52-67.

Foorman, B.R. (2003). Preventing and remediating reading difficulties. Baltimore, MD: York Press.

Fuchs, L.S., Fuchs, D., Yazdian, L., & Powell, S.R. (2002). Enhancing first-grade children's mathematical development with peer-assisted learning strategies. The School Psychology Review. 31(4), 569-583.

Fueyo, V. & Bushell, D. (1998). Using number line procedures and peer tutoring to improve the mathematics computation of low- performing first graders. Journal of Applied Behavior Analysis. 31(3), 417-430.

Harper, G.F., Mallette, B., Maheady, L., Bentley, A.E., & Moore, J. (1995). Retention and treatment failure in classwide peer tutoring: Implications for further research.

Journal of Behavioral Education, 5, 399-414.

Harvey, S. (1998). Nonfiction matters: Reading, writing, and research in grades 3-8. York, ME: Stenhouse Publishers.

Harvey, S. & Goudvis, A. (2000). Strategies that work: Teaching comprehension to enhance understanding. Portland, ME: Stenhouse Publishers.

Hattie, J.A. (1992). Measuring the effects of schooling. Australian Journal of Education, 36(1), 5-13.

Heibert, E.H. (1994). Reading Recovery in the United States: What difference does it make to an age cohort? Educational Researcher, 23(9), 15-25.

Heron, T.E., Welsh, R.G., & Goddard, Y.L. (2003). Applications of tutoring systems in specialized subject areas. Remedial and Special Education, 24(5), 288-300.

Hock, M.F., Schumaker, J.B., & Deshler, D.D. (2001). The case for strategic tutoring. Educational Leadership. 58(7). 50-52

Houghton, S. & Bain, A. (1993). Peer tutoring with ESL and below-average readers. Journal of Behavioral Education, 3, 125-142.

Lou, Y., Abrami, P.C., Spence, J.C., Poulsen, C., Chambers, B., & d'Appollonia, S. (1996). Within-class grouping, "A meta-analysis. Review of Educational Research, 66, 423-458.

Lyon, G.R., Fletcher, J.M., Torgensen, J.K., Shaywitz, S.E., & Chhabra, V. (2004). preventing and remediating reading failure: A response to Allington. Educational Leadership, 61(6), 86-88.

Madden, N.A., Slavin, R.E., Karweit, N.L., Dolan, L., & Wasik, B.A. (1991). Success for All: Multi-Year Effects of a School-wide Elementary Restructuring Program. Report No. 18. Washington, D.C.: Office of Education Research and Improvement. (ERIC Document Reproduction Service No. ED 336 492).

Maheady, L., and Harper, G.R. (1987). A class-wide peer tutoring program to improve the spelling test performance of low-income, third-and-fourth grade students. Education and Treatment of Children, 10, 120-133.

Marzano, R.J., Pickering, D.J., & Pollack, J. (2001). Classroom instruction that works: Research-based strategies for increasing student achievement. Alexandria, VA: Association for Supervision and Curriculum Development.

Marzano, R.J. (2003). What works in schools: Translating research into action. Alexandria, VA: Association for Supervision and Curriculum Development.

McCarthy, p., Newby, R.F., & Recht, R.D. (1995). Results of an early intervention program for first grade children at risk for reading disability. Reading Research and Instruction, 34, 295-314.

Medway, F.J. (1991). A social psychological analysis of peer tutoring. Journal of Developmental Education. 15(1), 117-176.

Miller, A.D., Barbetta, P.M., Drevno, G.E., Marts, S.A., & Heron, T.E. (1996). Math peer tutoring for students with specific learning disabilities. Learning Disability Forum, 21(3), 21-28.

Miller, A.D., Barbetta, P., & Heron, T.E. (1994). START tutoring: Designing, training, implementing, and adapting tutoring programs for school and home settings. In R.Gardner, J.O.

Moody, S.W., Vaughn, S., & Schumm, J. S. (1997). Instructional grouping for reading: Teachers' views. Remedial and Special Education, 18, 347-356.

National Reading Panel. (2000). Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for instruction. Reports of the subgroups. Washington, D.C.: National Institute of Child Health and Human Development.

National Research Council: Bransford, J.D., Brown, A.L., Cocking, R.R., Donovan, M.S., & Pellegrino, J.W. (Ed.). (2000). How people learn: Brain, mind, experience, and school. Washington, D.C.: National Academy Press.

Newell, A. & Rosenbloom, P. (1981). Mechanisms of skill acquisition and the law of practice. In J. R. Anderson (Ed.), Cognitive skills and their acquisition (pp. 1-56). Mahwah, NJ: Erlbaum.

Osguthorpe, R.T. and Scruggs, T.E. (1986). Special education students as tutors: A review and analysis. Remedial and Special Education, 7(4), 15-26.

Parker, R. & Hasbrouck, J.E. (2002). How to tutor students with reading problems. Preventing School Failure, 47(1), 42-44.

Peach, W.J., & Moore, L. (1990). Peer tutoring to increase spelling scores of the mildly mentally handicapped. Journal of Instructional Psychology, 17, 43-49.

Rimm-Kaufman, S.E., Kagan, J., & Byers, H. (1999). The effectiveness of adult volunteer tutoring on reading among "at risk" first grade children. Reading Research and Instruction. 38(2), 143-152.

Schneider, W. & Shiffrin, R.M. (1977). Controlled and automatic human information processing: I. Detection, search, and attention. Psychological Review, 84, 1-66.

Schroth, M.L. (1992). The effects of delay of feedback on a delayed concept formation task. Contemporary Educational Psychology, 17, 78-82.

Schroth, M.L. (1995). Variable delay of feedback procedures and subsequent concept formation transfer. The Journal of General Psychology, 122, 393-399.

Schroth, M.L. (1997). The effects of different training conditions on transfer in concept formation. The Journal of General Psychology, 124, 157-165.

Schroth, M.L. & Lund, E. (1993). Role of delay of feedback on subsequent pattern recognition transfer tasks. Contemporary Educational Psychology, 18, 15-22.

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, 958-995.

Shiffrin, R.M. & Schneider. W. (1977). Controlled and automatic human information processing: II. Perceptual learning, automatic attending, and a general theory. Psychological Review, 84, 127-190.

Shute, R. (1992). The sensitivity of children and adults as tutors. Educational Studies. 18(1), 21-37.

Simmons, D.C., Fuchs, L.S., Fuchs, D., Mathes, P., & Hodge, J.P. (1995). Effects of explicit teaching and peer tutoring on the reading achievement of learning-disabled and low performing students in regular classrooms. The Elementary School Journal, 95, 387-408.

Snow, C.E., Burns, M.S., & Griffin, P. (Eds.) (1998). Preventing reading difficulties in young children. Washington, D.C.: National Academy Press.

Swanson, H.L. (1999). Reading research for students with LD: A meta-analysis of intervention outcomes. Journal of Learning Disabilities, 32, 504-532.

Thorndike, E.L. (1898). Animal intelligence: An experimental study of the associative processes in animals. Psychological Monographs, 2(Whole No. 8).

Torgesen, J.K. (2002). The prevention of reading difficulties. Journal of School Psychology, 40(1), 7-26.

Torgesen, J.K. (2004). Lessons learned from research on interventions for students who have difficulty learning to read. In P. McCardle & V. Chhabra (Eds.), The Voice of Evidence in Reading Research. Baltimore, MD: Brookes.

Vadasky, P.F., Jenkins, J.R., Antil, L.R., Wayne, S.K., & O'Connor, R.E. (1997). The effectiveness of one-to-one tutoring by community tutors for at-risk beginning readers. Learning Disability Quarterly. 20, 126-139.

Vadasy, P.F., Jenkins, J.R., & Pool, K. (2000). Effects of tutoring in phonological and early reading skills on students at risk for reading disabilities. Journal of Learning Disabilities, 33(6), 579-590.

Vygotsky, L.S. (1978). Mind in society. Cambridge: Harvard University Press.

Wasik, B.A. (1997). Volunteer training programs. Phi Delta Kappan. 79(4), 282-288.

Wasik, B.A., & Slavin, R.E. (1993). Preventing early reading failure with one-to-one tutoring: A review of five programs. Reading Research Quarterly, 28, 179-200.

Wright, J.E., Cavanaugh, R.A., Sainato, D.M., & Heward, W.L. (1995). Evaluation of a classwide peer tutoring program in a modified Spanish class for secondary students identified as learning disabled or academically at-risk. Education and Treatment of Children, 18, 33-52.