

Many centuries ago, Comenius commented, “Qui docet, dicit.” (Who teaches, learns) or in more recent terms: “To teach is to learn twice.”

During the last 30 years, the research has been ripe with indications that tutoring is one of the most effective forms of instruction (Bloom 1981) and is the instructional strategy that makes the largest significant impact on student achievement (Marzano 2003). Cross-age tutoring brings to instruction the particularly powerful influence that socialization experiences with peers can have on student academic achievement and motivation. (Light and Littleton, 1999; Steinberg et al. 1992; Wentzel 1999). Both tutors and tutees benefit from cross-age tutoring—socially, emotionally and academically.

Area of benefit	Findings	Citing
Cross-age tutoring is an effective teaching strategy and can make a significant difference for the tutor and tutee.	Resiliency research shows that those youth who became successful adults had received three “protective factors” from the home, school or community. Those factors were caring and support from another person; high expectations of the youth; and opportunities for participation in meaningful activities.	Benard 1991
	"Both mainstream and minority students show far greater increases in academic achievement when they participate in collaborative learning projects than when they remain in traditional teacher-focused classrooms."	Heath, and Mangiola 1991
	One reason peer tutoring works may be that tutors and tutees speak a more similar language than do teachers and students.	Hedin 1987; Cazden 1986
	Developmental-ecological theory states that the way children interact with the significant influences in their environment such as parents, peers and classrooms determines their degree of success in meeting development challenges such as adaptation to school.	Coll and Garrido 2000
	Tutors provide tutees with much-needed role models.	Hedin 1987
	The fact that their "cognitive framework" is similar may also help peer tutors present subject matter in terms their tutees understand.	Cohen 1986
	Children can explain and teach concepts to one another.	Slavin 1990; Webb and Farivar 1994; Palinscar 1996; Wertsch and Bivens 1992
	“... scientific studies have left little doubt that peer relations can greatly benefit children's social and intellectual development. The case for children's peer relations has been made repeatedly and conclusively in developmental theory and research . . . Repeated studies have shown that peer interaction is conducive, perhaps even essential, to a host of important early achievements: children's understanding of fairness, their self-esteem, their proclivities toward sharing and kindness, their mastery of symbolic expression, their acquisition of role-taking and communication skills, and their development of creative and critical thinking.	Damon and Phelps 1989
	Self-determination theory states that the degree to which students are motivated to pursue academic goals is directly related to their level of engagement in learning tasks; student achievement motivation is not an isolated internal process, but in contrast, classroom instructional environment plays an important role in this process.	Ryan and Deci 2000

Area of benefit	Findings	Citing
Academic benefits	Both tutors and tutees have been shown to benefit academically from peer and cross-age tutoring in elementary mathematics.	Britz, Dixon and McLaughlin 1989; Damon and Phelps 1989; Pigott, Fantuzzo and Clement 1986
	Researchers have also noted significant beneficial effects on the language arts achievement of tutors and especially tutees.	Rekrut 1992; Palincsar and Brown 1986; Wheldall and Mettem 1985; Wheldall and Colmar 1990; Giesecke, Cartledge and Gardner 1993; Barbetta, Miller, Peters, Heron, and Cochran 1991 (can say Baretta et al – p642 CMS)
Benefits tutees	For the tutee, being a “friend” of a high-status older child will most likely increase the younger child’s self esteem.	Topping 1988
	Tutees improve not only academically; they also show great improvement in communication skills, ability to identify long-range goals, self-confidence, and interpersonal skills.	Martino 1994
	“Unlike adult-child instruction, [in] peer tutoring the expert party is not very far removed from the novice party in authority or knowledge; nor has the expert party any special claims to instructional competence. Such differences affect the nature of discourse between tutor and tutee, because they place the tutee in a less passive role than does the adult/child instructional relation. Being closer in knowledge and status, the tutee in a peer relation feels freer to express opinions, ask questions, and risk untested solutions.”	Damon and Phelps 1989
Benefits at-risk tutees	One broad review of studies of both regular and special education students and across a variety of subject areas concluded that cross-age and same-age peer-mediated strategies were as effective or more effective than the traditional teacher-mediated practices to which they were compared.	Greenwood, Carta, and Kamps 1990
	Studies addressing specific categories of disability have also found academic and affective benefits, specifically improvements in math, social skills, and time-on-task: <ul style="list-style-type: none"> • Learning disabilities • Attention deficit hyperactivity disorder • Special education 	Kalkowski 1995 Trapani and Gettinger 1989 DuPaul and Henningson 1993 Fowler 1986
Benefits tutors	Tutors' self-esteem rises as they see their tutees improve. Knowing they are making a meaningful contribution is a powerful experience.	Gaustad 1992
	Cross-age tutors have been shown to perform better than control students on examinations in the subjects being taught.	Cohen, Kulik, and Kulik 1982
	Although tutors may be covering material they had been presumed to have mastered, they are still gaining from this process...they are likely to remember the material better from putting that knowledge to some purpose.	Topping 1998
	Tutors feel more respected and admired...being needed, valued and respected by another gives tutors a new view of themselves as a worthwhile person.	Hedin 1987
	Serving as tutors increases children’s self-concept, improved relationship between peers, reduced absenteeism, and improved classroom behavior.	Giesecke et al. 1993
	Organizing material to teach facilitates long-term retention and aids in the formation of a more comprehensive and integrated understanding. Tutoring also provides opportunities to practice and improve communication skills and work habits.	Cohen 1986

Area of benefit	Findings	Citing
Benefits at-risk tutors	At-risk tutors were successful in tutoring younger peers.	Giesecke et al. 1993
	Tutors who have struggled academically may be more patient and understanding than those who haven't.	Lippitt (Vernon, ed) 1976.
	Research indicates higher reading grades than the comparison group. The at-risk tutors showed a reduced number of disciplinary action referrals after participation in the (tutoring) program while the comparison group raised theirs. Tutors gained in their self-concept as measured by the Piers-Harris Self-Concept Scale and Quality of School Life Scale and maintained the self-concept and positive attitude toward school.	Supik 1991
	<p>Research on low-achieving and other high-needs students as tutors show impressive gains for low-achieving, limited-English-speaking, learning disabled, behaviorally disordered and other at-risk students in both academic and affective realms and at all age/grade levels. Areas showing significant benefits for tutors engaged in peer or cross-age tutoring include:</p> <ul style="list-style-type: none"> • Academic achievement in various subject areas, particularly reading and math • Locus of control • Self-esteem • Social skills • Attitude toward school • Dropout rate, truancy, tardiness 	<p>Kalkowski 1995</p> <p>Byrd 1990; Cardenas, et al. 1991; Maheady et al. 1988,1991; McLaughlin and Vacha 1992</p> <p>Lazerson, et al. 1988</p> <p>Byrd 1990; Cardenas et al. 1991</p> <p>Mathur and Rutherford 1991</p> <p>Cardenas et al. 1991</p> <p>Cardenas et al. 1991; Lazerson et al. 1988</p>
	Tutoring has tremendous impact on at-risk student tutors: "Unfortunately, in our society children are typically the recipients of help from others, rather than the givers of help...The feeling of being useful to others is particularly important for adolescents; being caught between childhood and adulthood, they realize that they are not yet useful and needed members of society. The impact of this experience may be even greater for at-risk students who have often felt like failures."	Allen (as quoted in Duckenfield 1995)
	Commentary by researchers assert no correlation between a "tutor's intellectual credentials and effectiveness in tutoring."	Gaustad 1992
	There is evidence that students who have struggled are more patient and understanding than those who have not experienced difficulty in learning.	Gaustad 1992
	The IDRA's Josie Supik believes empathy contributes greatly to low-achievers' effectiveness as cross-age tutors. Tutors often "pick up on things teachers weren't able to" because they had experienced similar problems a few years earlier.	Intercultural Development Research Association 1991

Area of benefit	Findings	Citing
Service learning opportunities	Cross-age tutoring consists of the essential components of service learning: preparation (learning activities that take place prior to the service itself); action (that is meaningful with academic integrity, provides student ownership, with adequate supervision and developmentally appropriate); reflection (discussion, reading, writing and projects that enable students to critically think about their service experience); and celebration (recognizing students for their contributions and lending closure to an ongoing activity).	Duckenfield and Swanson 1992
Cross-age tutoring is cost effective	Tutoring, including cross-age tutoring, has been shown to be one of the most cost-effective strategies to enhance academic performance of struggling students.	Berliner and Casanova 1988; Giesecke, Cartledge and Gardner 1993; Hedin 1987; Levin 1984; Martino 1994; Supik 1991
	Both peer tutoring and CAI were shown to be more cost-effective than reducing class size or increasing the length of the school day. Even with higher start up costs, (planning time, training, consultation and tutor training), peer-tutoring operating costs may be lower than those of other programs.	Greenwood, Carta, and Kamps 1990

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