Peer Learner Engagement:
Enhancing the Promise of School Improvement

William Cassell
CEO, The Learning Together Company

Willard R. Daggett, Ed.D.
Founder and Chairman, International Center for Leadership in Education

International Center for Leadership in Education
Rigor, Relevance, and Relationships for ALL Students

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The Little Red Schoolhouse is an indelible American icon from the 19th and 20th centuries. Children of all ages gathered together to learn in one room, a learning space housing grades 1-8 and occasionally 1-12. The concept was simple — and effective. An older, more experienced child would teach, mentor, or support one or more younger children. They worked from primers, readers, arithmetic and music books, and penmanship materials. Not only did the younger children benefit from having many "teachers," both adult and older children, but older children also reinforced key concepts for themselves. The result was that students of all ages gained critical social and emotional skills that transcended academic learning. From Corner School in Camp Point, Ill. in 1916, Florine Luckel's memories reflected that:

> …students looked forward to helping each other; this was both fun and efficient, according to Florine, because each student got to use her/his expertise to help other students. Of course it helped Miss Knoblock deal with lesson plans for as many as eight different grade levels and eleven subjects. Florine smiled at the fact that this form of 'cooperative learning' was happening long before such techniques were advocated in teaching methods classes in college. http://csaa.typepad.com/country_school_associatio/

Today, while the importance of children helping children has never been greater, most national and state reading test scores reflect scant improvement. Basic reading scores are up in comparison to 1992 and 2005 results, according to the 2007 report of the National Assessment of Educational Progress (NAEP), but there is no significant change in the percentage of students at or above the Proficient level (National Center for Education Statistics, 2007).

Even though today's classroom has evolved from that one-room schoolhouse, 21st century teachers share a similar concern for teaching children to read. Educators continue to face the challenge of reducing the number of children who fail to learn to read proficiently. A return to the basic premise of multi-age children learning together offers a viable solution to education's foremost goal of literacy for all.

The Peer Learning Initiative Today

Educators must develop curriculum and select instructional strategies that will enable students to develop *all* their intelligences, to become 21st century learners — capable of rendering informed decisions in the voting booth, developing rich relationships within family and community, and nurturing a wide range of interests and skills by which to earn an adequate living and pursue a satisfying life richly lived.

In real life, each of us is a member of many groups: e.g., family, extended family, close friends, peer acquaintances, neighbors, fellow workers, clients, and car pools. The contribution to our learning from each group is different and greatly enriched by the diversity in ages, experiences, and points of view. Likewise, multi-aged grouping and interactions can enhance the conditions for learning in elementary instruction, especially when collaborating with older students spanning three years or more. While it is important to teach students the skills to collaborate successfully in the classroom with those of their own age group, providing opportunities to work with older and younger students may assist them at even deeper levels to become effective members of society as adults.

Cross-age tutoring programs per se have many benefits, both to the students doing the tutoring and to those receiving the assistance. Student tutors may assist with class projects, provide direct instruction,

lend support in lab work, help with homework, help with in-class assignments, discuss ideas with students, and so forth. Research on the merits of these cognitive processes in cross-age peer learning is widespread, and significant student progress in the social and emotional domains can occur as well. *In short, tutoring raises academic mastery and unleashes metacognitive processes, providing social and emotional benefits that are not generally available in the classroom environment.*

However, while research shows peer learning is one of the most effective ways of engaging students and promoting academic, social, and emotional growth, schools and districts today often find it difficult to create sustainable and replicable models for implementation. The study, *Evidence That Tutoring Works,* (U.S. Department of Education, 1997) posited the following criteria for effective peer learning:

- research-based elements
- close coordination with classroom or reading teacher
- careful monitoring and reinforcement of progress
- intensive and ongoing training
- well-structured and scripted lessons
- frequent and regular tutoring sessions

The Power of Peer Learning for the School and District

Well-planned, well-organized, and well-executed peer interactions have repeatedly shown positive evidence of student progress and learning. Schools and districts realize measurable academic results including:

- increased student achievement
- higher scores on state- and nationally-mandated assessments
- lower overall costs through:
  - o improved attendance
  - o lowered retention rates
  - o reduced special education placement
- enhancement of the available support
- a battery of social and emotional gains

Students who fall into below-proficient categories stand to gain the most in a peer-learning environment. At-risk students (including special education, ELL, Title I, ethnic minorities, and general education) have not always been able to develop proficiency and comprehension skills and therefore are especially in need of peer-learning programs to move at a pace to reach proficiency. They also need peer learning as a matter of equity and social status within the school. Students who are at risk and who are especially vulnerable to alienation, lack of confidence, lack of caring and companionship, etc., can benefit from a peer-learning program that launches a transformative process involving both the cognitive and the affective domains.

For adult teachers, the benefits of peer learning include not only improved pedagogies in training and watching students plan and teach, but improved organizational and leadership skills.

Why Peer Learning Works: Underlying Tenets and a Growing Conceptual Base

To understand the peer-learning initiative today is to grasp four basic truths that have surfaced since the early days of the Little Red Schoolhouse.

A.	Peer learning reinforces the basic tenets of brain-based instruction.
B.	Peer learning elevates cognitive and behavioral opportunities in how children learn.
C.	Peer learning embraces the Rigor/Relevance Framework®.
D.	Peer learning provides a seamless interface to the Learning Criteria.

Rich content, solid intervention strategies, and proven evidenced-based results offer transformative powers to the current state of practice. The crossroads peer learning faces tomorrow will lie much more in policy development and practical implementations than in the dynamism of the theory and research base itself, as discussed below.

A. Peer Learning Reinforces the Basic Tenets of Brain-Based Instruction

A school district that implements initiatives in using brain research to impact academic achievement and social development does so successfully by aligning research-based practices with proven results that serve to enhance and promote peer learning.

Experiences, thoughts, actions, and emotions actually change the structure of students' brains. Everything affects brain development, and development is a lifelong process. Stimulating peer learning programs provide the best possible environment for learning — one in which experiences are powerful enough (engaging, sensory-rich input), thinking is reflective and analytical (not just reactive), actions/movement are used to enhance learning, and emotions open the door for learning and performance.

How neurons organize themselves and how they connect with each other results in the outward manifestations of learning and the quality called intelligence. As a function of age, dendrites and axons increase in complexity. The brain becomes measurably denser and heavier.

Such growth — multiple branching of the dendrites, mylenation of axons, enlargement of synapses, and overall size of the neurons — is the brain's response to rich sensory input from an enriched environment. In contrast, sterile, boring environments not only result in significantly less growth, but in actual shrinking of dendrites. The stimulation of an enriched environment results in significant physiological change in the brain — as much as 20% compared to brains in sterile, boring environments. So, dendritic spines grow, change shape, or shrink as they experience their world. Neurons grow larger. The brain constantly regenerates. Therefore, by choosing the types of input (instructional practices such as peer learning) that produce the greatest physiological change in the brain, the level of brain plasticity is increased.

Providing large amounts of sensory-rich input from experiences or simulations in the real world — and purposefully reducing the amount of low-sensory input materials and processes such as textbooks, worksheets, and working in isolation — moves instruction and curriculum beyond Quadrant A and towards Quadrant D of the Rigor/Relevance Framework.

The enrichment of the brain can enable learning to occur based on brain functions. IQ is not pre-destined, but high-poverty students *must* get the enrichment they need; purposeful social interactions can actually change the way the brain works and enable learning to occur. As a result, IQs do rise as well as simple scores (Jensen, 2006).

B. Peer Learning Elevates Cognitive and Behavioral Opportunities in How Children Learn

What is it about students teaching each other that seems to work so well?

Cognitive restructuring, motivation, and developmental psychology are at the core of the concepts and methodologies supporting peer learning. Resiliency is an outcome of social and emotional learning — the result of a transformative self-perception process. Peer learning that "goes the extra mile" buoys learning beyond instructional strategy to behavioral skill building and social emotional development. In the process, it elevates learner engagement, self-esteem, and self-confidence. Students become simply learners, not struggling learners.

Causal explanations include theories of cognitive restructuring that benefit the tutor by increasing his or her own understanding of the content. Piaget is well known for his theory of cognitive development (memory, spatial organization, attention, language, and decision making among others). Young children's cognitive processes are inherently different from those of adults; each of his developmental stages exhibits the distinctive common patterns of cognition in each period of development. Vygotsky's research on social induction further supports the importance of socialization and learning to interact with others — a peer transfers knowledge to someone else and that person gradually grows in independence (Vygotsky, 1978).

Peer Learning in the Context of Cooperative Learning

A variety of programs exist in schools to enable students to serve as teachers or tutors for other students. These teaching opportunities may occur informally in a classroom setting with a student who needs academic assistance. Cooperative learning activities occur when the groups "sinks or swims" together as team members work interdependently. Many teaching moments occur this way among students. In these positive interdependence activities, students feel that they need one another in order to succeed. Each member of the group is essential in helping to complete the task. When students perceive that their achievement is correlated with that of other students, a sense of positive interdependence develops. Students recognize that each member functions as a part of the whole and that the success of the entire group depends on the contributions of each member. These team-building activities foster peer tutoring, support, and encouragement.

Therefore, cooperative learning strategies create a learning environment in which students are willing to help one another, give and receive feedback, respect others' ideas, and validate their own ideas. Because peer-learning programs are centered on caring one-on-one bonds that form between students, they are especially appropriate in after-school settings where students welcome the change that cooperative learning provides after a full day in the classroom.

The Inherent Value of Mixing Grades

While some schools may seek homogeneity by sorting students according to age, IQ number, achievement levels, and so forth, teachers will always face a group of students whose brains are more different than alike. For handling such dizzying differences among learners, Gardner's Theory of Multiple Intelligences remains one of the most powerful and practical areas of brain research to apply in the classroom. Gardner's work is an eminent common sense and intuitive definition of intelligence: "... a problem-solving and/or product-producing capability." Ample practice solving real problems together and creating products of value in the real world increases the capacity to do so, which in turn increases the capacity to solve ever more complex problems. This then lays the groundwork for the acquisition of new knowledge (Gardner, 1983).

To grasp the power of Gardner's Theory of Multiple Intelligences one must make a distinction between how students take in information (the visual, auditory, tactile, and kinesthetic modalities) versus how students process information inside their brains in order to first make meaning of the input and then use it

to act upon the world. Remember that these intelligences are sets of problem-solving and product-producing skills/knowledge, not merely gateways through which information passes to reach the brain. Gardner's intuitive mental construct has been supported through evidence from more recent research in brain physiology and neuroscience.

Peer Learning and RtI

Peer learning helps elementary schools to implement a Response to Intervention (RtI) framework to ensure that all students in the primary grades learn to read. RtI's comprehensive early detection and prevention strategy identifies students struggling in reading and math and assists them before they fall behind. Students evidencing potential difficulties with learning to read are provided with more intensive reading interventions; in fact, RtI and multi-tiered intervention can provide such considerable aid to students struggling in reading that it can be used before the decision to move children into special education instruction.

> RtI also urges schools to use evidence-based practices in all tiers and to provide intensive services only to students who fail to benefit from a well designed, evidence-based intervention. This helps to accurately determine which students possess learning disabilities in reading since only students who do not respond to high-quality reading instruction in their general education classrooms would be considered for special education (U.S. Department of Education, 2009).

Peer Learning and ELL

The report, *Effective Literacy and English Language Instruction for English Learners in the Elementary Grades Institute of Education Sciences* (U.S. Department of Education, 2007), makes the following recommendations for peer learning:

- Provide intensive small-group reading intervention. Major instructional principles include multiple opportunities for students to practice reading both words and sentences, either in a small group or with a peer.

- Schedule regular peer-assisted learning opportunities. Ensure that teachers of English learners devote approximately 90 minutes a week to instructional activities in which pairs of students at different ability levels or different English language proficiencies work together on academic tasks in a structured fashion. These activities should practice and extend material already taught.

This latter recommendation is based on several high-quality experiments and quasi experiments with English learners. In addition, many peer-assisted studies also have been conducted with native-English-speaking students, and the results have consistently supported the positive impact of peer tutoring on student learning outcomes.

Three high-quality experiments and quasi experiments have evaluated the effectiveness of English learners working in pairs in a structured fashion several times a week (Calhoun, Otaiba, Cihak, King, and Avalos, 2006). These studies demonstrated positive impacts on reading achievement for students at various ability levels. Two additional studies provide evidence of the positive impact of student activities in cooperative groups of four to six students (Calderón, Hertz-Lazarowitz, and Slavin, 1998).

Partner work is an opportunity for students to practice and extend what the teacher has taught during regular instruction. Partner work is excellent for tasks in which correct and incorrect responses can be clearly determined (word and text reading and phonological awareness activities, such as identifying sounds in words). However, evidence also demonstrates that partner activities can build skills for tasks in which correct and incorrect responses are harder to determine, such as reading comprehension and other tasks that require student explanations. In three of the five studies, students worked in pairs to practice, consolidate, and extend pre-reading, decoding, comprehension, and spelling skills.

C. Peer Learning Embraces the Rigor/Relevance Framework

Studies have shown that all students understand and retain knowledge best when they have applied it in a practical, relevant setting. A teacher who relies on lecturing does not provide students with optimal learning opportunities; instead students watch their teacher work. The International Center's Rigor/Relevance Framework is a powerful tool that has proven highly effective in leading tutors and tutees to both high rigor and high relevance. Educators can use the Rigor/Relevance Framework with peer-learning curriculum, instructional, and assessment strategies to plan the objectives they wish to achieve. Furthermore, the opportunities for academic rigor increase when peer-learning materials are correlated to state standards and research-based best practices.

The Knowledge Taxonomy of the Framework describes the increasingly complex ways in which tutors and tutees think. It is based on the six levels of Bloom's Taxonomy:

1. knowledge
2. comprehension
3. application
4. analysis
5. synthesis
6. evaluation

The Application Model of the Framework measures the knowledge to action continuum across five levels:

- knowledge in one discipline
- application of knowledge in one discipline
- application of knowledge across disciplines
- application of knowledge to solve real-world, predictable problems or situations
- application of knowledge to solve real-world unpredictable problems or situations

When implementing the Rigor/Relevance Framework in a classroom, school, district, or state, the aim should be to design instruction and develop assessments that measure Quadrant D performance. This enables both tutor and tutee not only to gain knowledge, but also to develop real-world skills such as inquiry, investigation, and experimentation. Quadrant D learning requires the student to think and work, thoroughly understand the content being taught and, equally important, conceptualize and use relevant applications of the rich content being covered.

Excellence in any endeavor comes not from striving for minimum performance but from reaching for lofty goals. A focus on rigor, relevance, *and* relationships is a passionate and lofty goal that inspires students beyond the minimum. Enthusiasm is growing for rigor, relevance, *and* relationships because it fosters learner engagement beyond the core requirements.

D. Peer Learning Provides a Seamless Interface to the Learning Criteria

The International Center has recognized that successful schools plan and measure their effectiveness (and the success of their students) by focusing on more than academic achievement as measured by test scores. Many of them draw upon the four dimensions of school improvement conceptualized through the Learning Criteria:

- Foundation Learning
- Stretch Learning
- Learner Engagement
- Personal Skill Development

The Learning Criteria have been used by schools and districts to help them plan, develop, and measure the effectiveness of their school improvement strategies based on a whole school/whole child approach.

Peer Learning and Learner Engagement

The Rigor/Relevance Framework recognizes that, just as relevance serves as a pre-condition for academic rigor, relationships nurture learner engagement that helps students to recognize relevance. Students must feel cared about, safe, secure, and free from ridicule or threat before learning can be optimized. Learner engagement is one of the four dimensions of the Learning Criteria that a school or district can use to create and measure its vision of school excellence. This process helps to establish an atmosphere where tutors and tutees are enabled, motivated, and confident enough to take responsibility for their own learning.

Engagement, a concept well supported by cognitive science, is the way in which students interact with instruction, feel secure and supported, and take responsibility for their own learning, *if* they see the value and purpose underlying each assignment. There are multiple ways for tutors and tutees to demonstrate their understanding and feelings of confidence from doing a comprehensive job. Engaging activities provide the opportunity for tutors and tutees to connect this relevant learning to the community and world in which they live.

In short, learner engagement explains the need to find ways to stimulate learning and help tutors and tutees use/connect with/leverage whatever works for them individually. Assisting students with finding their learning "sweet spot" helps them to take responsibility for their own learning.

The benefits of peer learning to tutees are compelling. One of the most important advantages is the immediate and frequent praise, feedback, and encouragement. Compare that to 20 students with one teacher. From where does the immediate feedback come? How many of the students receive timely, sufficient feedback from the teacher during each activity or during an entire day? At the instant they are trying to make sense out of the learning (pattern seeking), or practicing application (program building), where can they get feedback to let them know if they are correct? Certainly not from fellow, same-age, same-ability students, who are also struggling with the same task.

Gibbs (1995, 2001) offers a powerful rationale for investing in the time to build a learning community in the classroom: immediate feedback is a necessary element in the successful learning environment — both for pattern seeking and for program building. Consider, for example, when children first begin to talk. As they say something incorrectly, caregivers immediately give them the correct word, usage, and pronunciation. Imagine letting all their mistakes pile up during the week and correcting them on Friday! When learning to play a game or sport or beginning a hobby, feedback is built in, immediate, and continuous. In such cases, either the learning materials or the conditions themselves provided the immediate feedback, or your teacher or fellow adventurer interpreted your approximation toward mastery. This is a far cry from the classroom setting with the often asked questions: "Is this right, teacher?" "Teacher, is this the way it's supposed to turn out?" Receiving feedback tells us we have succeeded at a learning task, producing a "chemical high" that is readily observable in the sparkle of a student's eye as the "aha" registers.

In contrast, each of us has had personal experiences with learning when the feedback was confusing, delayed, or not forthcoming at all. Such feedback is dangerous because it too often results in development of incorrect patterns (misinformation) and programs (wrong responses). Students become frustrated when having to struggle with un-learning the misinformation or ineptly attempting the new skill and then having to correct the previously incorrect mental programming.

Contrary to popular belief, the hardest thing the brain does is to forget something it has learned, as distinguished from forgetting something it never learned in the first place or that was never meaningful…

which occurs for 80% of the students who stopped just short of mastery, just short of building a mental program.

The importance of immediate feedback to the student, then, is obvious. Feedback, accurate and immediate, is needed at the time the learner is building his/her mental program to ensure that the program is accurate and to help speed up the process of building more programs.

Peer Learning and Personal Skill Development

Similarly, personal skill development, another dimension of the Learning Criteria, measures the degree to which schools expect and enable students to develop inherent talents, but also to develop those generic leadership, interpersonal, and self-management skills that empower students to achieve their fullest capacities as students, responsible family members, lifelong learners, citizens, employees, providers, and contributors to society.

Many of the perceived roles of the student tutor form the core of personal skill development. They include active roles such as advisor, facilitator, mentor, teacher, motivator, friend, peer, team member, communicator, mentor, and role model. Many of these roles involve the development and strengthening of status, authority, and self-perceptions. Older students are learning important and relevant life skills, including how to work in peer groups, how to manage time and resources, how to teach younger children, how to meet and debrief with adults, and how to deal with problems and make on-the-spot decisions. The benefits of these roles to student tutors are enormous.

- improved leadership skills
- Improved organizational skills
- a sense of pride and accomplishment for having helped someone else
- increased reflection and commitment to their own learning
- increased self-esteem, confidence, and sense of adequacy
- a new or increased sense of responsibility and awareness for what teachers must do
- empathy for tutees for whom learning may be much more of a struggle
- success at their own level and pace
- reinforcement of their knowledge of the subject being tutored
- insight into the teaching profession
- improved communication and interpersonal skills. Interpersonal intelligence involves looking outward toward the behavior, feelings, and motivations of others. The core capacity of interpersonal intelligence is the ability to notice and make distinctions among other individuals and, in particular, among their moods, temperaments, motivations, and intentions. Students strong in interpersonal intelligence:
  o have many friends
  o socialize a great deal at school or around the neighborhood
  o read people's intentions and motives
  o get involved in after-school group activities
  o serve as the "family mediator" when disputes arise
  o enjoy playing group games with other students
  o show considerable empathy for others

The aspect of student ownership is particularly noteworthy when discussing student tutors and personal skill development. Students are quite capable of identifying the advantageous behaviors as well as creating the procedures to delineate the actions needed. With older students, this also creates a sense of ownership in the procedures, for example, "We all wrote and approved of these behaviors. We agreed to follow and use them when working collaboratively." Student tutors in a Chicago inner city school:

> … assume major responsibilities in their families, particularly regarding younger siblings. Many of my students prepare dinner, help siblings with homework, and get them ready for bed every evening while the household adult(s) is/are at work ... This element of self-control, of choice, is

extremely significant for all young teenagers, but perhaps particularly so for inner city children, who are often forced to confront complicated life situations from a very early age. They become accustomed to making decisions and assuming responsibilities at home, and that mentality doesn't just switch off when they enter school every morning. If we entrust them with responsibility at school, we are meeting their needs in a very different way because we are showing that we trust and respect them and expect them to do important things in school (Stecz, 2009).

Learning is best remembered when one has the opportunity to teach another. When students are provided with appropriate training, they can successfully tutor other students. The tutor offers a positive role model for learning and brings enthusiasm in exploring new topics and subject matter.
Indeed, the gains for tutors often outdistance those of the tutees as the tutors learn through teaching — reworking what they know in order to make it understandable to their tutees.

For the tutee, the opportunity to establish a trusting relationship with an older peer or adult, a positive role model who brings enthusiasm in exploring new topics and subjects is another key advantage.

As for the tutee, he or she benefits from having someone closer to his or her developmental level who may be able to explain concepts in a variety of ways and in language that may not be apparent to the adult teacher. Damon and Phelps (1989) explained this idea in the following way: Being closer in knowledge and status, the tutee in peer relation feels freer to express opinions, ask questions, and risk untested solutions. The interaction between instructor and pupil is more balanced and more lively. Thus, child-to-child interactions not only empower the designated tutor but also may equally empower the tutee. Knowledge may feel more accessible coming from someone relatively close in age, and the process may feel more collaborative; therefore, the tutee may feel more actively involved and thus participate more in the process of learning (Stecz, 2009).

Other instrumental advantages of tutee initiatives that span multiple dimensions of the Learning Criteria include:

- individual, one-on-one attention and instruction free of competition
- opportunities for additional learning
- Quadrant D learning
- assistance in areas of academic deficiency
- continuous monitoring (from coordinator, tutor) to maximize time on task
- modeling of effective reading strategies
- enhancement of oral and written language skills

Raising the Bar to Transformative Learning Approaches

If peer learning reinforces the tenets of brain-based instruction, elevates cognitive and behavioral learning opportunities for children, embraces the Rigor/Relevance Framework, and provides a seamless interface to Learning Criteria, why isn't its potential more widely tapped? The challenge is planning well-organized and well-executed peer interactions that show measurable results, incorporate a structure that is both easy to use and flexible, and provide support for schools with little experience in using the multi-age concept.

One such structured program is Learning Together, a cross-age tutoring program that addresses achievement, learner engagement, and personal skill development for at-risk learners. Learning Together tutees in grades 2-6, and their upper elementary and middle school tutors, have been shown to reach or exceed state proficiency standards in fluency and comprehension (Reading Together™) and critical

thinking and problem solving (Math Together™) in a wide range of implementations in Title I and 21st century schools. Academic gains are consistent across subgroups; in fact, independent research indicates that gains are most pronounced in the highest-need populations, including ELL, economically disadvantaged/Title I, and special education students.

In *Evidence of Long-Term Learning 0utcomes Among Reading Together Tutees (*Policy Studies Associates, Inc., 2007), R2 students in the Irving Independent School District, Texas, maintained their gains after exiting the program. "Test results *do* suggest that the *R2* participants … are making greater gains in reading … in the two and one-half year time lapse between the pretest and the TAKS [Texas Assessment of Knowledge and Skills] administration, participants made substantially greater gains than the general population."

In Cherry Creek Public Schools, Colo., which has used *Reading Together* for the past five years, results on the QRI3 Reading Assessment Instrument indicate:

- 2nd grade tutees gained 2.6 grade levels in accuracy and 2.2 in comprehension
- 3rd grade tutees gained 2 grade levels in accuracy and 1.5 in comprehension
- 4th grade tutors gained 2.5 grade levels in both measures
- 5th grade tutors gained 4 grade levels in accuracy and 3 in comprehension

In addition, Cherry Creek chose peer learning as part of its initiative to build internal and external developmental assets such as motivation, responsibility, engagement, sense of purpose, sense of personal power, and positive peer influence. "The self-respect and commitment kids bring to the process has grown each week," one administrator noted. "Tutors have gained empathy for their tutees and classroom teachers. They're highly motivated to rise to the occasion, to be prepared and to set a positive example."

To support high quality, successful programs such as Learning Together at the state, district, and school level, the Rigor/Relevance Framework can align the different stages of knowledge and application to achieve optimum peer learning. Quadrant D reflects the ultimate goal of students achieving high academic proficiency *and* high social/behavioral skills as they become fully engaged in school culture and reach their fullest potential.

For those familiar with Quadrant D learning, a similar framework can be used to illustrate peer learning. In a Peer Learning Engagement Framework, *academic achievement* (cognitive learning) can serve as the vertical continuum and *social/behavioral accomplishment* (affective learning) as the horizontal continuum. Each of the four quadrants represents varying degrees of progress toward a Learning Together environment. In Quadrant A *(traditional learning),* a teacher-directed, authoritative classroom exists with limited learning modalities. In Quadrant B *(interactive learning),* student interaction and involvement are high, yet instruction operates within a limited/weak curriculum; standards are primarily teacher-driven content with little academic focus. Quadrant C *(academic learning)* offers a rigorously aligned curriculum and instructional focus, yet classroom management is unstructured and largely ineffective. Quadrant D *(transformative learning)* incorporates a rich blend of both high academic and high social/behavioral integrative skills, transforming the classroom into a well-executed peer-learning environment.

Peer Learner Engagement Framework
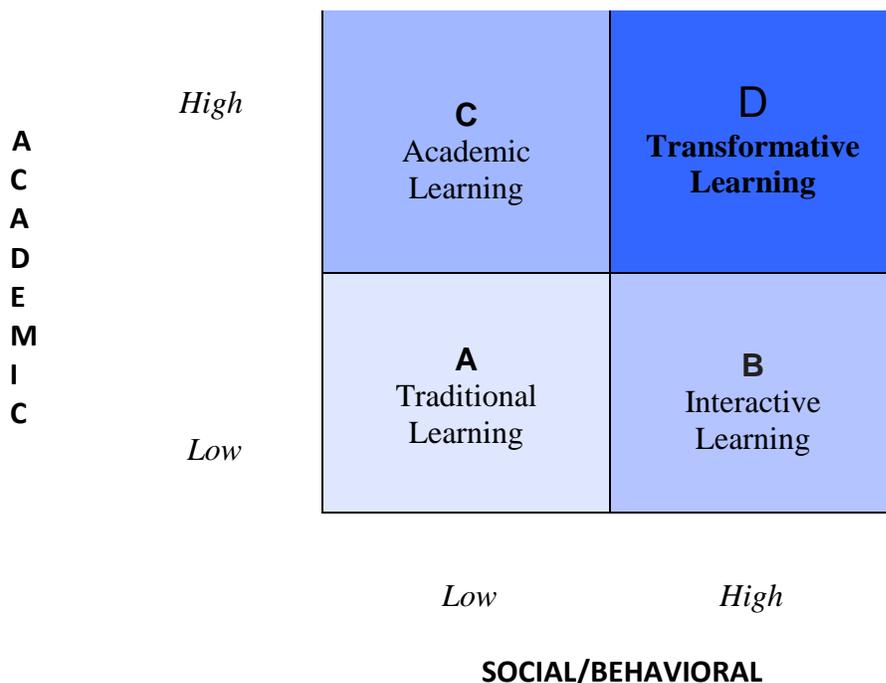
Peer learning holds the potential for serious ongoing collaboration among schools that will lead to new heights in school improvement. Policy makers and educators can identify the quadrant that comes closest to describing their district's current strategies and challenges for educating at-risk learners. They can then use peer-learning programs such as Learning Together to develop an action plan to reform instruction and curriculum practices, professional development, and school culture accordingly. In doing so, the use of the Learning Criteria data will empower schools and school communities to craft meaningful, cogent, and comprehensive school improvement plans, to set powerful school change agendas, and to envision critical interventions that fortify the efforts of students, teachers, and school administrators to achieve academic excellence.

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