



PROFESSIONAL DEVELOPMENT

One intervention.

12 research-based outcomes for students.

School leaders are asked to raise achievement, close gaps, lift engagement, reduce behavior problems, strengthen belonging, and improve attendance — usually through separate initiatives. Kagan addresses all of these initiatives and others through one change in daily instruction.

Kagan multiplies participation

Far more students are thinking, talking, explaining, and responding at the same time — instead of one student at a time.

Kagan structures for students to succeed together

Positive interdependence, individual accountability, equal participation, and simultaneous interaction — built into every Kagan Structure.

OUTCOME | 1 INCREASED COOPERATIVE BEHAVIOR

Cooperation in the classroom created a tenfold increase in cooperative behaviors across the school.

Two elementary schools. One instructional change. In both schools, without prompting, students increased cooperative behaviors outside their classrooms.

BRIEF SUMMARY

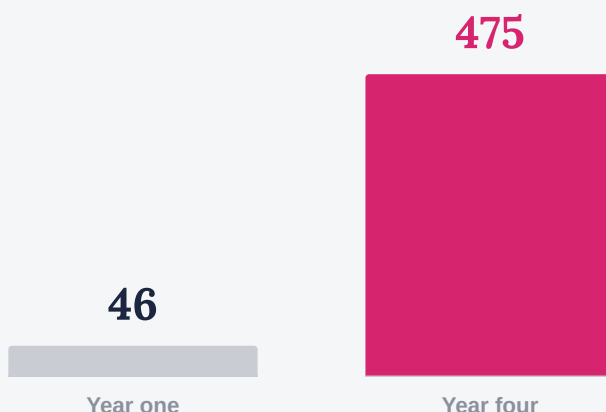
Two elementary schools adopted Kagan Cooperative Learning schoolwide, and staff logged *positive* behavior referrals — unsolicited acts of helping, honesty, and courtesy — the same way most schools log discipline referrals. Both schools tracked the count over several years as cooperative learning became routine in every classroom.

A CLOSER LOOK

Cooperative behaviors were recorded **outside** the cooperative lessons — in hallways, on playgrounds, between classes. That is the finding: cooperation practiced in structured teams carried into places where no one assigned it.

CHEATHAM ELEMENTARY SCHOOL · POSITIVE BEHAVIOR REFERRALS

A tenfold increase in four years.



Referrals here record *positive* behavior. As Kagan Cooperative Learning became part of everyday instruction, staff witnessed and logged ten times more cooperative behaviors than prior to Kagan.

What the positive referrals were actually for.

- Turning in lost money, jewelry, and phones
- Helping classmates who dropped their books
- Holding doors for teachers carrying materials
- Picking up playground trash unasked
- Mediating conflicts before they escalated

Every one of these was unsolicited, and none happened during a lesson.

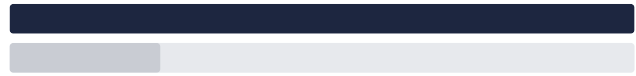
The same principal did it again at a second school.

Positive referrals

75 → 280

Discipline referrals

200 → 48



76% fewer discipline referrals — while positive referrals nearly quadrupled.

How Kagan achieves these results.

Teammates need one another

Kagan Structures build in positive interdependence: students work toward shared goals where each contribution matters. Helping a classmate is the task, not a favor.

Praise replaces put-downs

Encouraging, coaching, praising, and celebrating replace competing for teacher attention and peer status. Collaboration replaces isolation.

Repetition fosters a cooperative disposition

Because the cooperative structures run daily across every subject, students practice cooperating hundreds of times. What starts as a classroom behavior becomes a habit students carry with them.

“The positive behavior became the expectation and the norm.”

PRINCIPAL MICHAEL WINTERS

One student answers at a time. That is the whole problem.

Trained observers compared traditional whole-class questioning with Kagan Structures across four schools. Engagement rose in every school.

BRIEF SUMMARY

Researchers from the State University of New York (SUNY) sent trained observers into classrooms to time how long students were actually on task — first under traditional Call On One questioning, then under Kagan Structures, in the same rooms with the same content.

A CLOSER LOOK

In all four schools tested, engagement in the academic task was significantly greater with Kagan Structures. These results held across grade levels and subjects: third-grade social studies, sixth-grade science, and seventh-grade language arts.

Maximum active response time per student

One hour of instruction, class of 30

Call On One

2 min

RoundRobin, teams of four

15 min

PairShare

30 min

On-task behavior, students with disabilities

SUNY engagement study

Traditional Call On One

63%

Numbered Heads Together

97%

How Kagan achieves these results.

Simultaneity

Instead of one student responding while 29 wait, half the class talks at once. The same fifty minutes produces 15 times more practice per student.

No one can hide

Individual accountability means every student takes a turn — so participation is not left to the fastest hand in the room.

They switched between Kagan and traditional. The scores followed.

In a high school chemistry study, researchers alternated between traditional review and a Kagan Structure four times. Quiz averages favored Kagan every time.

BRIEF SUMMARY

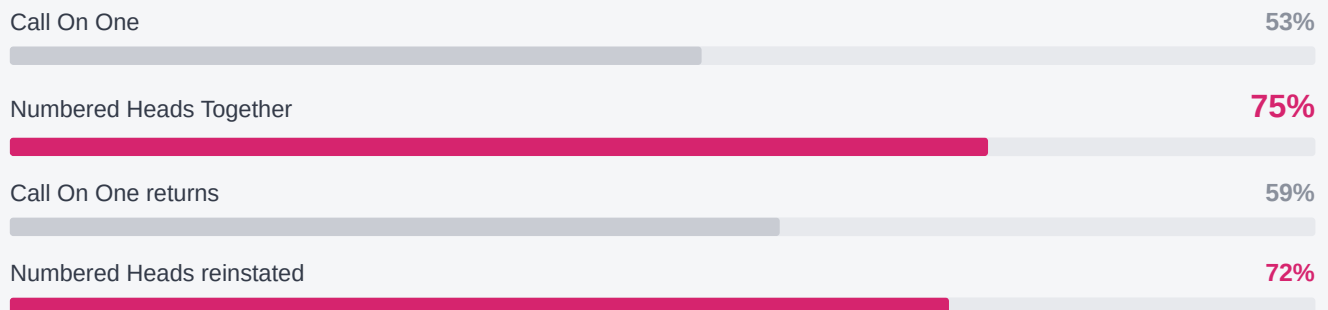
Researchers from the State University of New York (SUNY) alternated weekly chemistry review between traditional Call On One and Kagan's Numbered Heads Together, then tracked average quiz performance through each switch.

A CLOSER LOOK

Under Numbered Heads Together no student had a failing average and six averaged above 90%. Under Call On One, six students were failing and only one averaged above 90%.

Weekly quiz averages as the structure alternated

High school chemistry, SUNY study



Beyond one classroom

Mills Hill School, UK. Students scoring above national averages in combined English and mathematics rose from about 30% to more than 70%.

Lehigh Senior High. Algebra scores improved 17%, moving the school from the bottom of the district to the top.

Across SUNY studies. Average effect size of .92 — roughly a 32-percentile gain. Many studies find stronger academic performance.

How Kagan achieves these results.

Engaged students learn more

More time actively processing content, more practice, more chances for the teacher to hear and respond to student thinking.

Peers coach peers

Encouragement and tutoring from teammates raise achievement — and research on learning by teaching shows tutors gain as much as the students they help.

With Kagan, everyone gained. The students furthest behind gained most.

Gaps close when the bottom rises faster than the top — without holding the top back.

BRIEF SUMMARY

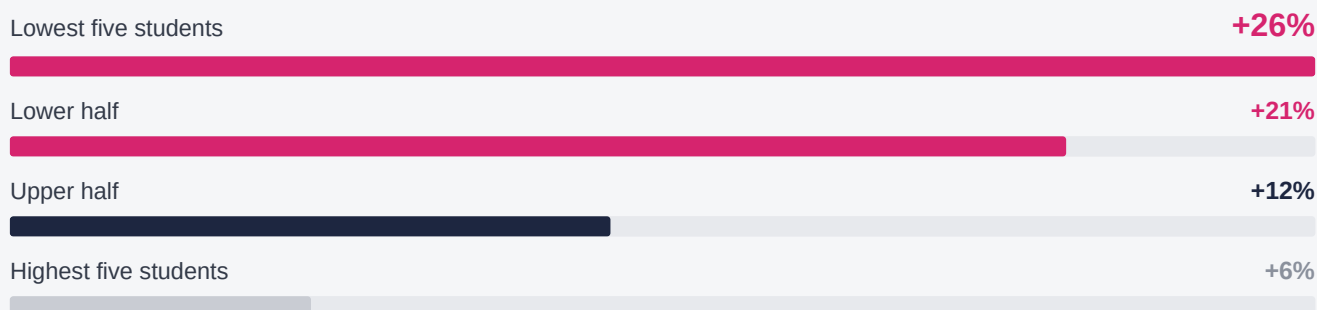
Analysis of how much the low and high achievers gained following the switch to Kagan Cooperative Learning revealed low achievers gained the most, narrowing the achievement gap.

A CLOSER LOOK

High achievers still improved. Peer tutoring is not a zero-sum exchange — research on learning by teaching shows tutors make academic gains that rival the gains of the tutees.

Achievement gain after switching to a Kagan

Analysis of students by prior achievement



School using Kagan for one year vs. district peers

	KAGAN	DISTRICT
Math proficiency	81%	60%
Reading proficiency	79%	56%
Black–White gap, math	25%	47%
Black–White gap, reading	27%	43%

Overall achievement with Kagan was higher than district peers while the Black–White gap was smaller than other schools in the district.

How Kagan achieves these results.

Participation is required, not optional

Individual accountability and equal participation pull in the students who would otherwise opt out of answering a whole-class question.

Help arrives immediately

A struggling student receives coaching from a teammate in the moment — not after the unit test.

Given the choice between Kagan and traditional instruction, students chose Kagan 24 to 1.

After experiencing Kagan Cooperative Learning and Traditional Instruction, students were asked to spend a dollar on the one they preferred.

BRIEF SUMMARY

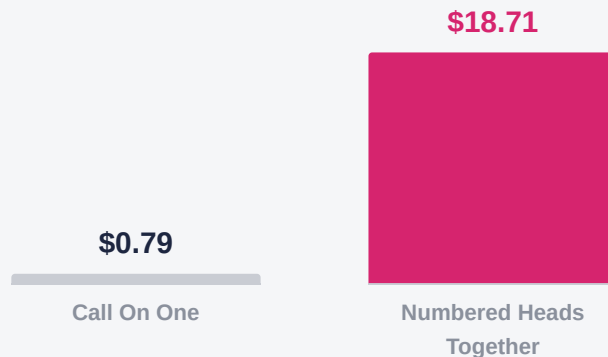
Students experienced both Call On One and Kagan's Numbered Heads Together, then received play money and allocated it to the instructional method they preferred — a simple, unambiguous preference measure.

A CLOSER LOOK

Satisfaction is not decoration. Students who enjoy class participate more, persist longer, and keep showing up.

Spend-A-Buck: where students put their money after experiencing both methods:

Same sixth-grade students, same science content.



Students allocated 23.7 times more to the Kagan Structure than to traditional whole-class questioning.

Survey results

District and classroom studies

Richmond students who enjoyed class more

93%

Favorable responses on communication and participation

89%

How Kagan achieves these results.

Class meets a social need

Frequent chances to interact, move, be heard, and be recognized align academic work with what students already want from their day.

Success feels different

Achieving more boosts student satisfaction. With peer support instead of peer competition, there are no losers.

In one year with Kagan, referrals fell by more than half.

Engaged students have less opportunity and less incentive to disrupt.

BRIEF SUMMARY

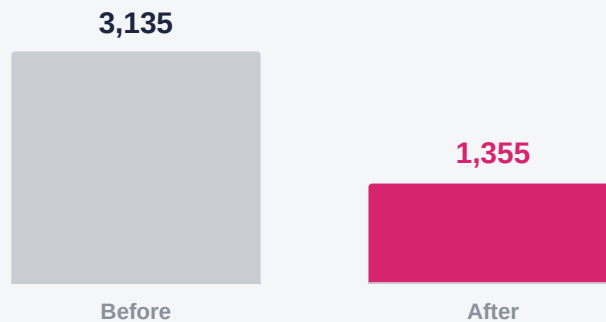
Lehigh Senior High School implemented Kagan Structures and compared discipline referrals with the prior year. Other schools tracked the same measure over longer spans.

A CLOSER LOOK

Rather than asking students to sit passively for long stretches, Kagan channels their need to talk, move, and interact into academically productive routines.

Discipline referrals, Lehigh Senior High School

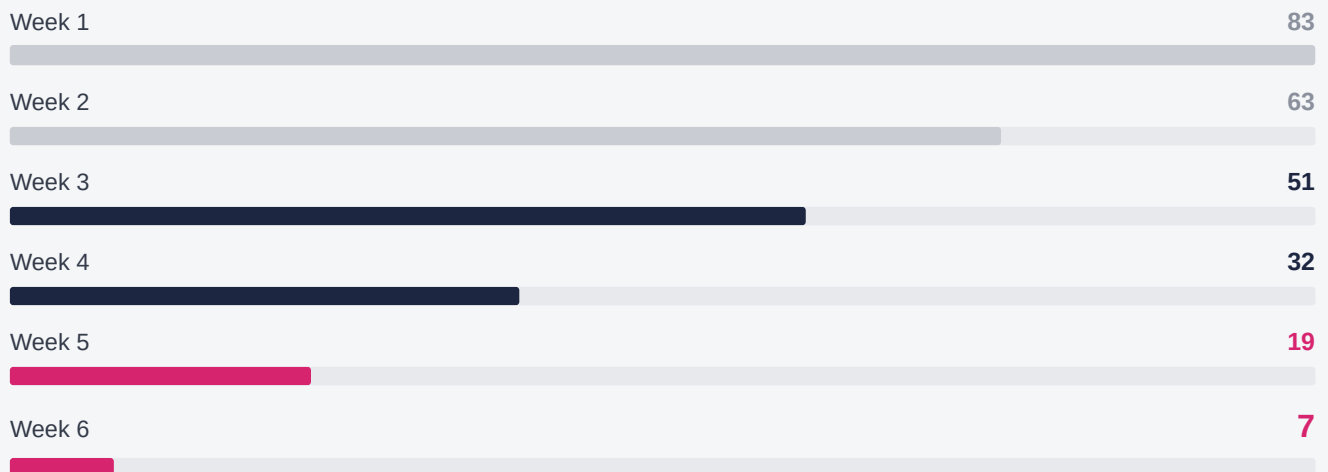
Year before and year after implementation



Lehigh Senior High School had a 58% decrease in discipline referrals in one year. Waterway Elementary fell 29% after year one; Sage Elementary went from 60.27 to 27.45 referrals per 100 students over four years.

Weekly disruptive incidents in one fourth-grade classroom

After introducing the Kagan Structures RoundRobin, RallyCoach, and Quiz-Quiz-Trade



With each passing week of doing Kagan Structures, discipline incidents continued to drop.

“Students are so engaged that they don’t have time to be disruptive.”

DEBBIE CIOLINO, TEACHER AT LEHIGH SENIOR HIGH

How Kagan achieves these results.

Fewer openings to disrupt

A student who is coaching a partner or owes the team an answer has neither the opening nor the motive.

Classmates stop being rivals

Fighting and insubordination are far less frequent when students like each other and their teacher.

Race becomes an insignificant factor in friendship choices in the cooperative learning classroom.

Roughly 900 students, two kinds of classrooms, one validated measure of friendship.

BRIEF SUMMARY

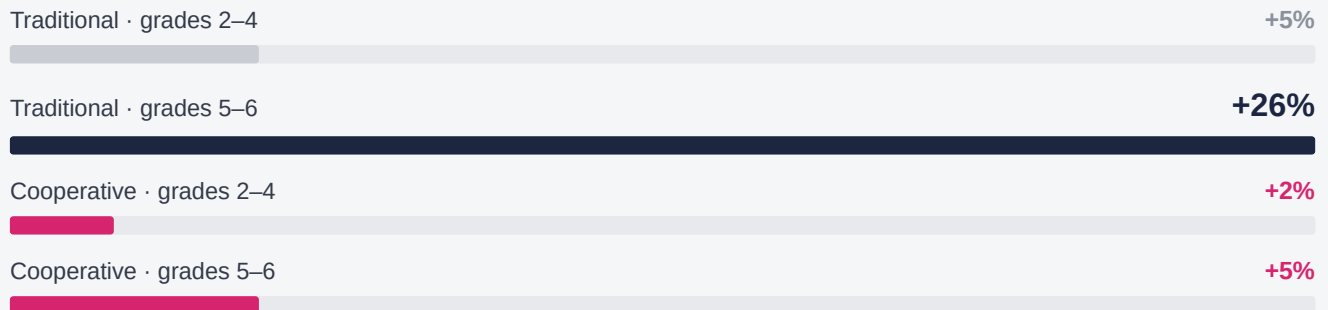
In the Riverside Cooperative Learning Experiment, students in racially diverse schools were divided proportionally between traditional and cooperative learning classrooms. Friendship choices were measured with the validated Interpersonal Relations Assessment Technique — a ladder from “sit next to me” to “tell secrets to.”

A CLOSER LOOK

No race relations or anti-racism curriculum was taught in either condition. The only difference was what students did all day. In the traditional classroom, by the middle grades, race became an important factor in friendship choices. In the cooperative learning classroom where students worked in mixed-race teams, skin color was an insignificant factor.

Own-race friendship preference

How much more often students chose own-race classmates



When students work independently in the traditional classroom, as students get older, they self-segregate along race lines. Cooperative learning reverses this troubling trend — race was not a significant contributing factor to measures of friendship and social intimacy.

How Kagan achieves these results.

Self-segregation grows with age — or does not

In traditional classrooms students progressively self-segregated as they got older. In cooperative classrooms racial discrimination never developed. The difference was highly significant, $p < .0001$.

Teammates are known for their qualities, not their racial category

Integrated teams plus teambuilding mean classmates are known by their ideas, humor, and effort rather than by racial category.

A district aimed to cut absences 3%. It cut them 15.5%.

The attendance evidence is preliminary — and pointing in one direction.

BRIEF SUMMARY

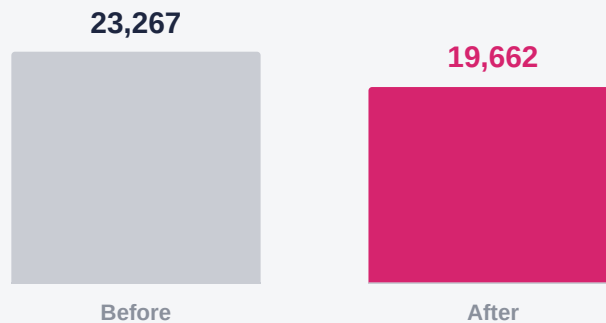
Richmond Community Schools set a district goal of reducing absences by 3%, then implemented Kagan Cooperative Learning district-wide and compared total absences.

A CLOSER LOOK

Attendance is shaped by how students experience school — and engagement, peer support, and academic success all improve at once, so students approach rather than avoid class.

Total district absences, Richmond Community Schools

Before and after district-wide implementation



A District-wide 15.5% reduction against a 3% goal. At one high school with serious absenteeism, attendance rose only in classrooms using Kagan Structures regularly; students were skipping classes in which they did not interact.

How Kagan achieves these results.

Attendance follows experience

Engagement, peer support, satisfaction, and academic success all improve at once — and each one makes school more attractive to attend.

Belonging is the mechanism

Students who feel connected to teammates have a reason to be there that a policy cannot manufacture.

Decades of studies find cooperative learning boosts students' self-esteem.

The field's founding researchers put numbers on it, and later reviews agreed.

BRIEF SUMMARY

David and Roger Johnson's review of social interdependence theory, published in AERA's *Educational Researcher*, aggregated decades of studies comparing cooperative, competitive, and individualistic learning.

A CLOSER LOOK

Cooperative learning strengthens the belonging, peer support, and academic self-concept — the basis of well-being. Self-esteem and social support skyrocket with cooperative learning fostering a foundation for well-being.

Effect sizes for cooperative learning

Johnson & Johnson, *Educational Researcher* (2009)

Self-esteem, high-quality studies vs. competitive

0.67

Self-esteem vs. competitive

0.58

Social support vs. competitive

0.62

Social support vs. individualistic

0.70

Over many studies, cooperative learning has shown substantial positive effects on students' self-esteem — especially notable given the trend of declining self-esteem among adolescents. These improvements come strictly from using cooperative learning, not from time taken off the academic curriculum for a self-esteem program.

Corroborated elsewhere

A meta-analysis of 27 experimental studies conducted in Korea reported cooperative learning produced an average self-esteem effect size of **0.99** — 33.89% greater effectiveness than non-cooperative conditions.

In a randomized six-week study of 62 seventh graders, students working cooperatively in pairs developed significantly higher social self-esteem than students in other conditions.

Robert Slavin's review of 28 classroom field projects reached the same conclusion.

How Kagan achieves these results.

Self-esteem increases as students work together

Self-esteem shifts from outperforming classmates to contributing to a team, improving academically, and belonging to a community of learners.

Social support supplants put-downs

Praise and coaching replace negative social comparison as the everyday peer experience.

Students with disabilities blossom in the Kagan classroom.

Two measures moved at once: how much students participated and how much they achieved.

BRIEF SUMMARY

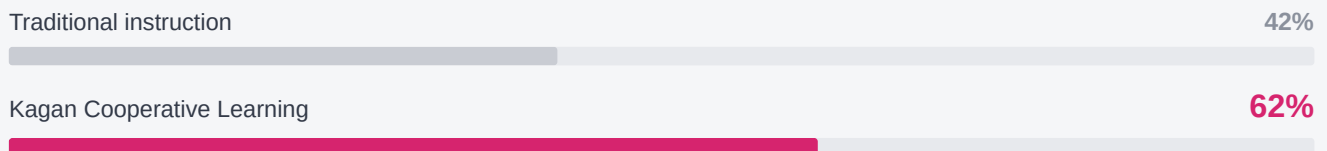
A seventh-grade language arts comparison measured achievement for students with disabilities under traditional instruction and under Kagan Cooperative Learning. A separate SUNY study timed their on-task behavior in both conditions.

A CLOSER LOOK

In Kagan Cooperative Learning, teammates encourage, coach, explain, and help one another and students with disabilities are included and valued.

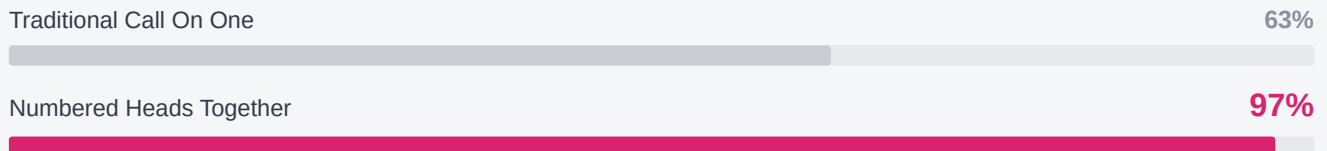
Achievement

Seventh-grade language arts averages



Engagement

On-task behavior, SUNY engagement study



For students with disabilities, Kagan Cooperative Learning outperformed traditional instruction for both engagement (34% higher) and academic achievement (20% higher). Particularly notable is the near-full student engagement with Kagan.

How Kagan achieves these results.

Inclusion becomes participation

Every student's contribution matters to the team, so being present and being involved stop being different things.

Support is continuous

Academic help arrives from teammates throughout the lesson rather than from one adult moving around the room.

Cooperative learning develops the most desired workplace skills.

The skills employers name most are the ones passive instruction cannot build.

BRIEF SUMMARY

A survey of 500 hiring managers asked whether high school graduates arrive prepared for the workforce, and how they compare with previous generations.

A CLOSER LOOK

Research shows the highest rated employability skills are teamwork, collaboration, interpersonal communication, leadership, navigating ambiguity, and managing conflict.

Hiring managers' assessment of graduates

Survey of 500 hiring managers

Say most graduates are not workforce-ready

84%

Say graduates are less prepared than previous generations

80%

Workplace skills practiced daily in the cooperative learning classroom

- Teamwork and collaboration
- Interpersonal communication
- Leadership
- Navigating ambiguity
- Managing conflict
- Reaching consensus and disagreeing respectfully

How Kagan achieves these results.

No extra curriculum required

Students explain, listen, question, coach, take turns, and resolve differences while learning content — workplace skills are acquired while academic content is learned.

The model matches the workplace

Schools cannot prepare students for collaborative work with instruction in which students spend the day working alone.

Bullying and school violence are replaced with caring and cooperation.

Cooperative learning reduces the peer experiences that foster bullying.

BRIEF SUMMARY

A study of 217 elementary students compared children who reported participating in cooperative learning with those who did not, measuring social predisposition, prosocial behavior, and aggression.

A CLOSER LOOK

Students who participated in cooperative learning showed a more cooperative predisposition, more prosocial behavior, and less likelihood of aggression.

What cooperative learning increases

- Peer acceptance and friendship
- Appreciation of diversity
- Helping, sharing, and peer support
- A cooperative rather than adversarial predisposition
- Communication and conflict-resolution skills
- Reduced social isolation

Why it matters at the culture level

- Research identifies bullying, ostracism, and peer victimization as important risk factors in many school-shooting cases.
- Reducing isolation and grievance-producing peer experiences reduces conditions associated with later harm-intending behavior.
- Bullying prevention is often a separate initiative. Kagan embeds inclusion, social skills, and peer support into ordinary instruction.

How Kagan achieves these results.

From against to with

Positive interdependence places students on the same side, seeking joint success rather than success at another student's expense.

Status without cruelty

Students who are accepted and praised by classmates have no need to seek status by bullying and having received praise rather than put downs, have no need to retaliate.

THE LEADERSHIP CASE

Twelve outcomes. One instructional change.

Kagan Cooperative Learning is not another initiative competing for instructional time — it changes how instructional time is used. Talk to us about what implementation would look like in your school or district.

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