



Grange Primary Academy

The best in everyone™

Part of United Learning

Kagan's Cooperative Learning Strategies

Dr Spencer Kagan is a renowned educator who changed the way the world viewed teaching. He is mainly known for his work on cooperative learning strategies (often referred to as Kagan learning structures)

Instead of didactic teaching, in which a teacher stands at the front and tells information to whole class, Kagan thought that there were more effective methods.

By adopting Kagan's approach, research has shown that it greatly improves:

- Team-building
- Social skills
- Communication skills
- Knowledge building
- Decision making
- Processing information
- Thinking skills
- Presenting information

What are Kagan Structures?

Structures are simple, step-by-step instructional strategies. Most Kagan Structures are designed to increase student engagement and cooperation.

For example, a simple Kagan Structure is a Rally Robin. Rather than calling on one student at a time, the teacher has all students interacting at once by saying, "Turn to your partner and do a Rally Robin." During a Rally Robin, students repeatedly take turns, giving one answer each turn to create an oral list. Each student in the class gives several answers. For longer responses, the teacher might use a different structure, a Timed Pair Share. In a Timed Pair Share, each student in turn shares for a predetermined time, perhaps only a minute each.

Source: http://www.kaganonline.com/free_articles/dr_spencer_kagan/ASK38.php

Kagan Structures Simply Put

Dr. Spencer Kagan

(Kagan Online Magazine, Summer 2008)



Recently I responded to interview questions for a newspaper article. The interviewer threw me some softball questions designed to make the Kagan approach to instruction understandable to the average reader without technical expertise in education. When I finished, I realized the answers might be of use to anyone who wishes to obtain, or provide for others, a simple introduction to the Kagan approach.

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The miracle of structures is that in the same amount of time that the teacher could call on and respond to two or three students in the class, each giving one answer, the teacher can have every student give several answers. In the traditional, call-on-one-at-a-time approach to instruction, it would take about an hour to have each student speak for a minute because the teacher asks the question, the student responds, and then the teacher responds to the answer, giving either a correction or praise. Further, because it tends to be the same students responding all the time, many students seldom participate, or even not at all. In the traditional approach, we end up calling most on those who least need the practice, and least on those who most need the practice. In contrast, with the structures, because all the students are responding at once, it takes only two minutes to give each student a minute of active engagement time, and it is not just the high achievers responding — everyone responds. Engagement goes up, as does joy in learning and achievement scores.



I have been working on the development of structures since 1968. **Over the years, we have developed over 200 structures.** Some are designed to engage and develop specific types of thinking, others to engage and develop specific social skills, others to develop different intelligences, others to align instruction with principles derived from brain science, and yet others to foster mastery of different types of academic content. We have even developed discipline structures to guide teachers as they interact with disruptive students so they can create win-win discipline solutions!

What subjects can you use Kagan Structures with? What grade levels can you use the structures with?

The structures are content free, and are used successfully at all grades levels, and with all content.

How do the Kagan Structures address differentiation?

In many of the structures, we can differentiate the level, and even the type of learning so student pairs can work at the appropriate level of difficulty. For example, during RallyCoach each pair can be working on either different content or different levels of difficulty of the same content.

How do Kagan Structures align with multiple intelligences and brain science?

There are many structures. Some are designed to engage the different ways students are smart; some are actually designed to engage different parts of the brain. Active brain imaging demonstrates that the brains of students are more engaged when working with each other than when working alone. This partly explains the greater gains obtained when we use the interactive structures.



What are the basic principles of Kagan Cooperative Learning? Why do we need basic principles?

The basic principles of good cooperative learning are that:

- 1) The learning task promotes teamwork and students experience themselves as being on the same side;
- 2) Each student is held accountable for their individual contribution;
- 3) Students participate about equally; and
- 4) Many students are engaged at once.

These simple principles ensure students will cooperate, that each will make an independent contribution, and that all students participate about equally and participate a great deal. They are important because if we leave them out, students can hide — they can take a free ride allowing others to do the work. In the traditional classroom, participation is voluntary. Many students, for whatever reasons, simply do not participate. When the principles are in place, all students become intensely engaged.

What is the recommended process for establishing teams? How does this affect gifted students? How does this affect struggling learners?

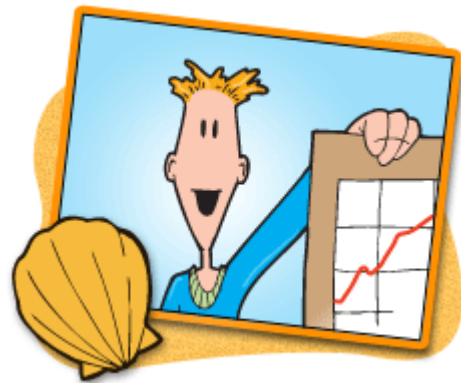
Teams are set up with a mix of ability levels to maximize peer tutoring and positive modeling. We recommend teams of four, with a high, high-middle, low-middle, and low achieving student on each team. That maximizes the potential for tutoring and positive modeling, and the team of four breaks nicely into two pairs, to maximize participation. In two minutes of

interaction, each student can verbalize their answers for a minute if they are in pairs, but for only 30 seconds if they are in teams. **That is why we have designed so many of our structures to include pair work — it doubles the amount of active participation.**

Both the gifted and the struggling students achieve more during cooperative learning than when working only alone. When we use the structures, gifted students continue to achieve at a high level academically, but acquire social skills and character virtues they would not acquire if they worked only alone. Struggling learners receive the benefits of peer encouragement, support, and coaching as well as immediate feedback. When working alone, they can practice wrong. When working with others, they have immediate correction opportunities. **It is the lowest achieving students who show the most dramatic gains when we institute cooperative learning.** The great thing is that those gains are not purchased at the expense of the high achieving students — all students benefit.

What about assessment and grading?

Authentic assessment improves dramatically when we use cooperative learning. Why? In the traditional class, the teacher calls on volunteers, usually the high achievers. So the teacher obtains a biased sample of the class. A student may answer correctly, but the teacher does not find out most of the class would not have known the answer had they verbalized their



thinking. In contrast, during cooperative learning structures, all students are responding and the teacher listens in. The teacher hears the thinking of the low-achieving and middle-achieving students, not just the high achievers. This gives the teacher an unbiased sample of the class.

With regard to grading, that is done in many ways, including tests, quizzes, essays, performances, and portfolios. In our approach to cooperative learning, students are individually graded on their individual performance. In good cooperative learning, students do not receive a grade based on the performance of their teammates.

Is this approach an extra workload for teachers? What are the benefits to teachers?

It is extra work to learn the structures, but once teachers know the structures, teaching is easier. The traditional teacher does most of the talking and is the hardest working person in the class. Structures reverse that. The teacher still provides instruction, but then sets students to work in teams so students do the talking and the work. Using the structures becomes automatic and teaching becomes more of a joy because students are so much more engaged and eager to learn.

What are the benefits to students?

The primary benefits of cooperative learning, documented by about a thousand [research studies](#), include increased academic achievement, improved social skills and social relations, improved thinking skills, reduced discipline problems, acquisition of leadership and employability skills, improved self-esteem, liking for school and content, and a reduction of the gap between high and low achieving students — not by bringing the high achievers down, but by bringing the low achievers up.

What are the benefits to schools?

There is pressure on schools to have students achieve more and to reduce the achievement gap. Structures do both those things. There are other benefits such as reduced discipline problems. But the biggest benefit is that schools accomplish their true mission. Because structures deliver thinking skills, social skills, and character virtues, schools better prepare students for success both on the job and in life

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The Essential 2!

Teachers that use just Rally Robin and Timed Pair Share can make a huge difference in achievement and engagement and can take their students a very long way simply instead of "calling-on-one." Along with higher academic achievement you will also see a reduction of the gap between high and low achieving students, improved social skills and cooperativeness, improved self-esteem, increased liking for school and learning, improved classroom climate, decreased discipline problems, increased leadership and employability skills, improved conflict resolution skills and increased empathy and concern for others!

The Essential 5!

Rally Robin



In pairs, students alternate generating brief oral responses.

Examples:

- List adjectives to describe the character.
- List inert elements.
- Share steps of the experiment.
- Describe an event from the story.

Timed Pair Share



In pairs, students share with a partner for a predetermined time while the partner listens. Then partners switch roles.

Examples:

- What is the key thing that you learned?
- What is one literary technique you plan to use in your writing and how will you use it?

RoundRobin



In teams, students take turns responding orally.

Examples:

- What makes a good listener?
- List objects that float?
- What clubs or societies are you a member of?
- What is one of your favourite movies?

RallyCoach



Partners take turns, one solving a problem while the other coaches. Then partners switch roles.

- Useful for any process or procedure with a definite right/wrong.
- Solve multi-step word problems in math.
- Change each decimal into a simplified fraction

StandUp, HandUp, PairUp



Students stand up, put their hand up and quickly find a partner with whom to share or discuss.

This structure is perfect for class building, processing and reviewing information, energizing the class, forming random pairs or teams, lesson starts or wraps

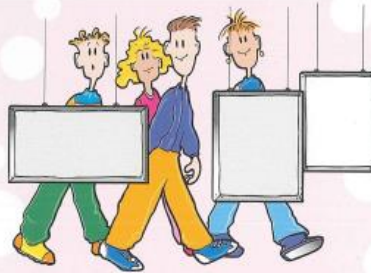
Kagan Cooperative Learning Structures *for engagement!*

Kagan
KCL: TSC

Make teaching and learning more fun and successful with **Kagan Structures for Engagement!** This SmartCard includes 27 illustrated Kagan Structures to make cooperative learning a success in your classroom.

AllWrite RoundRobin

In teams, students take turns responding orally. All students write each response on their own paper.



Carousel Feedback

Teams rotate from project to project to provide feedback to other teams on a feedback form.

Fan-N-Pick

Teammates play a card game to respond to questions. Each teammate has a role that rotates with each new question:

- Student 1: Fans the cards
- Student 2: Picks and reads
- Student 3: Answers
- Student 4: Tutors or praises



Find Someone Who

Students mix about the room finding others who help them learn content or skills, or who have certain characteristics.

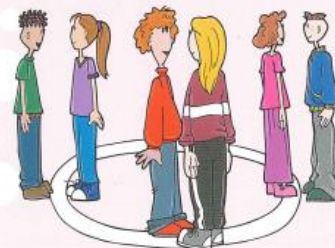


Find-the-Fiction



In teams, each student writes three statements: Two true, one false. Students take turns sharing their statements. Teammates try to identify the fictitious statement.

Inside-Outside Circle



In concentric circles, students rotate to face new partners and then answer or discuss teacher questions.

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Jot Thoughts

Students brainstorm in teams. Teammates write an idea on a slip of paper, announce it to the team, and place it on the team table. The team tries to cover the table with ideas.



Match Mine

Partners are on opposite sides of a barrier. The Sender arranges gamepieces on a gameboard and attempts to direct the Receiver to match the arrangement.

Mix-Pair-Share

The class "mixes" until the teacher calls, "pair." Students find a new partner to discuss the teacher's question.



RallyTable

In pairs, students alternate generating written responses or solving problems.

RoundRobin

In teams, students take turns responding orally.

Related Structures

- AllWrite RoundRobin
- Continuous RoundRobin
- Single RoundRobin
- Think-Write-RoundRobin
- Timed RoundRobin

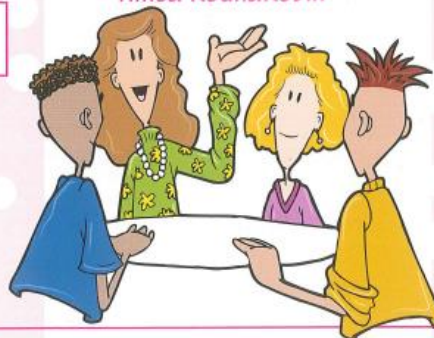


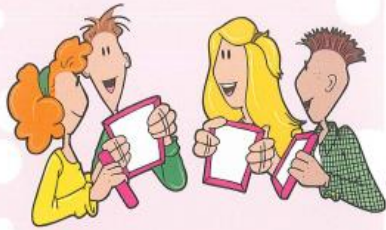
RoundTable

In teams, students take turns generating written responses, solving problems, or making a contribution to the team project.

Related Structures

- Continuous RoundTable
- RoundTable Consensus
- Simultaneous RoundTable
- Single RoundTable





Numbered Heads Together

After writing their own answer to a question, teammates put their "heads together" to ensure all members can answer. The teacher then calls a number and students with that number share their answers.



One Stray

On each team, one teammate "strays" from his or her team to a new team to share information.



Pairs Compare

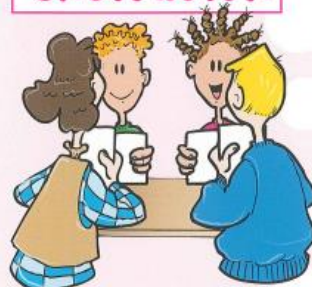
Pairs generate multiple responses to a question, then compare their answers with another pair. Finally, they team up to create additional solutions.

RoundTable Consensus

Students must first check with teammates for consensus before they take their turn to write or make a contribution to the team project.



Showdown



One teammate reads a question aloud. Students work independently to solve the problem, then show their answers when a teammate calls, "Showdown!" They then celebrate or coach.



Simultaneous RoundTable

In teams, students each write a response on their own piece of paper. Students then pass their papers clockwise so each teammate can add to the prior responses.



Using question cards, students quiz a partner, get quizzed by a partner, and then trade cards to repeat the process with a new partner.

Quiz-Quiz-Trade

RallyCoach

Partners take turns, one solving a problem while the other coaches.



RallyRobin

In pairs, students alternate generating oral responses.

Related Structures

- RallyCoach
- RallyTable
- Simultaneous RallyTable

Spend-A-Buck

When faced with a team decision, students use imaginary coins to vote on their favorite option. The option with the most coins is deemed the team decision.



StandUp-HandUp-PairUp

Students stand up, put their hands up, and quickly find a partner closest to them who is not a teammate. Students share information with their new partners.

Talking Chips

During a discussion, teammates place their chip in the center each time they talk. They cannot talk again until all teammates have placed a chip.





Team Stand-N-Share

Teams stand with a list of ideas to share. The teacher selects one student to share an idea. Other teams either check the idea off their list or add it. Each team sits when all items on its list are shared.

Think-Write-RoundRobin

The teacher asks a question or provides a task and gives think time. Students think, then respond independently in writing. Finally, students do a RoundRobin, each teammate taking a turn to share his/her response.



Timed Pair Share

In pairs, students share with a partner for a predetermined time while the partner listens. Then partners switch roles.

A Cooperative Learning Structure ...

1. Organizes Classroom Instruction.

A structure is an instructional strategy that describes how the teachers and students interact with the curriculum.

2. Is Content-free and Repeatable.

Structures are used to explore the curriculum, but are not tied to any specific curriculum. They can be used repeatedly with different curriculum, creating new learning experiences.

3. Implements the Basic Principles of Cooperative Learning (PIES).

There are four basic principles of cooperative learning symbolized by the acronym PIES: Positive Interdependence, Individual Accountability, Equal Participation, and Simultaneous Interaction. Cooperative Learning Structures have PIES built in. Without PIES, cooperative work is unstructured and achievement gains are questionable. The inclusion of PIES is what makes cooperative learning truly effective.

Kagan
Structures
for engagement!

1 (800) 933-2667
www.KaganOnline.com

The Fundamental Formulas

Content + Structure = Activity

(The WHAT
of teaching)

(The HOW
of teaching)

(A learning
experience)

Activity + Activity + Activity = Lesson

Structure Functions

This dot chart illustrates recommended uses for the structures featured in this SmartCard. The structures here represent a subset of the over 200 Kagan Structures.

KEY
 + Highly Recommended
 • Recommended

Structures

Structure	Interpersonal					Academic				
	Classbuilding	Teambuilding	Social Skills	Communication Skills	Decision-Making	Knowledgebuilding	Procedure Learning	Processing Info	Thinking Skills	Presenting Info
AllWrite RoundRobin		★	★	•		★	•	•	★	
Carousel Feedback			★	•		•		•	★	•
Fan-N-Pick		★	★	•		★	•		★	
Find Someone Who	★		★			★	•			
Find-the-Fiction		★	★	•	★	★			★	
Inside-Outside Circle	★		★			★		•	★	
Jot Thoughts		★	★			•		•	★	
Match Mine		•	★	★		★	•		★	
Mix-Pair-Share	★		★	•		•		★	★	
Numbered Heads Together		•	★	•	•	★	★	★	★	•
One Stray	•		★			•	•	•	•	★
Pairs Compare		★	★	•		★			★	
Quiz-Quiz-Trade	★		★	•		★	★	•	•	
RallyCoach			★	•		•	★		•	
RallyRobin			★	•		★	•	★	★	
RallyTable			★	•		★	•		★	
RoundRobin		★	★	•		★	•	★	★	★
RoundTable		★	★	•		★	•	•	★	
RoundTable Consensus		★	★	★	•	★	•	★	★	
Showdown			★			★				
Simultaneous RoundTable		★	★	•		★	•	•	•	
Spend-A-Buck			★	•	★				•	
StandUp-HandUp-PairUp	★		★	•		★	•	★	★	
Talking Chips		★	★	★		•		★		
Team Stand-N-Share			★	•		•		•		★
Think-Write-RoundRobin		★	★	•		★	★	★	★	
Timed Pair Share			★	★		•	•	★	★	•