Kagan Structures:
A Miracle of Active Engagement*

In this article, we contrast a conventional classroom lesson and its environment with a classroom where Kagan Structures are brought in. We discuss the benefits of the Structures and explain why this alternative approach to classroom organization works much better and has a long-term learning effect. Then, we present six of our favourite Kagan Structures that are particularly suitable for the language-learning context, and we offer you an overview and the support to apply them in your daily teaching routines.

For an in-depth presentation of the Structures and our approach to cooperative learning, you can read ***Kagan Cooperative Learning*** (2009).

Kagan Structures are instructional strategies designed to promote cooperation and communication in the classroom, boost students' confidence and retain their interest in classroom interaction. The Structures work in all teaching contexts—regardless of subject, age group, and number of students in class—and are a particularly powerful tool for teaching a foreign language.

Traditional Instructional Strategies vs. Kagan's Cooperative Structures

Let's compare a typical traditional English lesson to an English lesson using Kagan Structures. For example, we might want to teach direction vocabulary with prepositions of place and direction: *next to, down, into, out, up, above, below.*

In a traditional classroom, the teacher may provide some direct instruction, then do a wholeclass question-and-answer session. During the question-and-answer session, the teacher usually asks questions, then has students raise their hands to volunteer answers. Alternatively, the teacher may ask a question, and nominate a student to respond. Finally, the teacher may assign an activity for individual work and have the students independently practice the new skill. Sound familiar?

Traditional learning is either whole-class, with the teacher leading the class, or independent practice work. As we'll see below, traditional learning lacks a high level of active engagement, creates a more intimidating learning environment, and often fails to establish an effective communicative context for natural language acquisition. Cooperative learning offers a powerful alternative for language teaching—interaction! Many teachers believe Kagan Structures are instructional strategies designed to promote cooperation and communication in the classroom, boost students' confidence and retain their interest in classroom interaction. The Structures work in all teaching contexts—regardless of subject, age group, and number of students in class—and are a particularly powerful tool for teaching a foreign language. They are doing cooperative learning by introducing pair and group work. However, unstructured pair and group work lacks the basic principles of effective cooperative learning, and therefore, does not produce the gains of true cooperative learning. There is a vast difference between Kagan Structures and conventional pair or group work. Kagan Structures carefully engineer student interaction to maximize cooperation, communication, and

active engagement by all.

The teacher who is fluent with a number of Kagan Structures would teach the same lesson quite differently. She would likely still provide some direct instruction, but skip the whole-class question-and-answer session, and not do the individual exercise. Instead, she would choose a Kagan Structure that will involve everyone, and encourage sharing and cooperation. On the subject of directions, the teacher might have the students do a RallyCoach— students work in pairs and take turns answering the activity questions. Or, Match Mine would be another productive structure for this lesson. In Match Mine, partners sit on opposite sides of a barrier. One partner, the "Sender," places items in an arrangement. The other student, the "Receiver," tries to match the sender's arrangement, using only the sender's verbal directions. Students use the direction vocabulary in a functional way: Place the square next to the triangle. Place the circle below the triangle.

Kagan Structures carefully engineer student interaction to maximize cooperation, communication, and active engagement by all.

Choosing a cooperative learning structure over traditional methods creates a dramatic positive difference in English language learning. We now know that there are many styles of learning and multiple intelligences. What works for some, may not work well for everyone. Therefore, we need a variety of strategies to reach and teach our students with different learning styles and intelligences. If we always use lectures and independent exercises, we may inadvertently create barriers to English learning for many students. If, instead, we use a variety of structures as we teach, we engage the different learning styles and students' multiple intelligences. The variety creates greater novelty, increases motivation, and maintains attention. Kagan Structures also create greater engagement, lower anxiety, and promote natural language acquisition. Let's see how.

Cooperative Learning Increases Engagement for Everyone

One attribute that sets cooperative structures apart from traditional instruction is that structures don't call for voluntary participation. In the traditional classroom, the teacher asks students a question, and only those who know the answer, or who are daring enough to respond, raise their hands. The rest of the class can opt out. When students have the option of nonparticipation, many don't participate. This is especially true for shy students, lower achievers, and early language learners. The result: They don't learn as much or as quickly.

There is a direct connection between student participation, engagement, communication and subsequent language learning.

With Kagan Structures, participation is not voluntary. Participation is required by the Structure. In RallyCoach, students take turns. Both partners have a very specific role and they cannot accomplish the task without working together. It is the same with Match Mine. Students must communicate accurately to complete the task. In the traditional classroom, the structure does not require participation from every student. It is the same with Match Mine with pair work or group work. If pair or group work is not structured properly, one student can simply do the work, while the others watch, or even tune out. In contrast, the Structures hold every student individually accountable for participating. There is a direct connection between student participation, engagement, communication, and subsequent language learning.

In the traditional classroom, when one student answers at a time, the ratio of active engagement is quite low. What's more, the rest of the class sits quietly and there is very little involvement. During our cooperative learning practice, the class is divided into pairs, and at least half of the class is generating language at any time and the other half is directly receiving comprehensible input and practicing active listening. This radically increases the opportunity to decode and produce language.

Let's overview anecdotal, empirical, and theoretical support for the idea that enhanced student engagement is the way to walk upstream to simultaneously reduce discipline problems, achievement gaps, and dropout. To a significant extent, all three of these problems are merely symptoms of a common cause: lack of student engagement. We will take each symptom in turn.

Discipline Problems

Let me start with a personal anecdote. I attended Beverly Hills High School in the late 1950's. At that time, there was a heavy emphasis on academic achievement. I remember what our classes looked like and felt like. When the teacher talked, we all listened attentively. In fact, for many of us the teacher was the most engaging stimulus in our world. About thirty years later I was invited back to my high school to do a workshop for the teachers. That day I had the opportunity to walk through and observe classrooms. I was shocked! What stood out for me most was the change in the body language of the students. As students, we sat up, focused on the teacher, and listened attentively. Thirty years later in those same seats, students were slouched. Many had their heads down, not even listening to their teachers. Their body language conveyed disinterest and even disdain. Facial expressions mirrored feelings of disengagement.

How had everything changed in those intervening years? Beverly Hills High School still drew from rich neighborhoods. The students still drove fancy cars and wore expensive clothes. Class size was the same. But everything had changed. Part of the change is due to the level of stimulation to which students have become accustomed. When I was a student half a century ago, there were no cell phones, text messaging, DVDs, GameBoys, MTV stations, TIVOs, color TVs, iPods, video games, Wiis, or web-based forms of information and interaction. Many of today's students are sending and receiving an average of 50 to 100 text messages a day! In my day, without all the competing stimulation, the teacher was the most exciting thing in our environment. We listened to the teacher with fixed attention because the teacher was a source of stimulation. Today, the interest level a teacher can provide pales in comparison to all the other sources of stimulation to which students are constantly exposed. Simply put, today's students are accustomed to a level of stimulation with which the lecturing teacher cannot compete. A teacher talking cannot keep most of today's students fully engaged.

What does all this have to do with discipline problems? Engaged students are not disruptive. But, if the teacher's talk is boring for the student, students either "check out" during class, or look for other sources of stimulation — talking with a peer, or worse yet, creating an incident in class. If a teacher cannot compete with the stimulus level to which a student has become accustomed, a student doesn't value teacher talk, there is little or no cost to interrupting it, unless external punishments are imposed. And that is part of the reason today's teachers are requesting discipline workshops! If their content and instructional strategies were engaging for all their students, the students would not be seeking alternative sources of stimulation.

This point, that engagement prevents discipline problems, is nicely illustrated by the experience of Alfie Kohn, one of America's most prominent educators.[18] When Kohn began writing his book on discipline, he decided to observe the classrooms of a sample of teachers who had earned respect as among the very best teachers. He wanted to see how they handled disruptive students. He did hours of observations and came away saying he had absolutely nothing to write about. Why? In the classrooms of the very best teachers, students simply did not disrupt! The students were so engaged, their attention riveted on learning, they had no need or inclination to be disruptive.

I discovered this principle inadvertently years ago in another way. When I first began giving cooperative learning workshops, I was a professor of psychology and had no idea about classroom discipline issues. I had developed cooperative learning methods and was training teachers in how to use them. A pattern developed. A few weeks after the teachers began using the cooperative learning methods, very often the school principal or vice principal or whoever was in charge of discipline in the school would approach me. They would ask, "What is the new discipline program you are training?" I would be surprised, saying, "No, I am just training the teachers in cooperative learning. I am not offering any training in discipline." In some cases they would be insistent: "Oh, yes, you must be training a new discipline approach — our discipline referrals have gone way down!" I was baffled about these interactions but did not at the time give them much thought. It was only later that it made

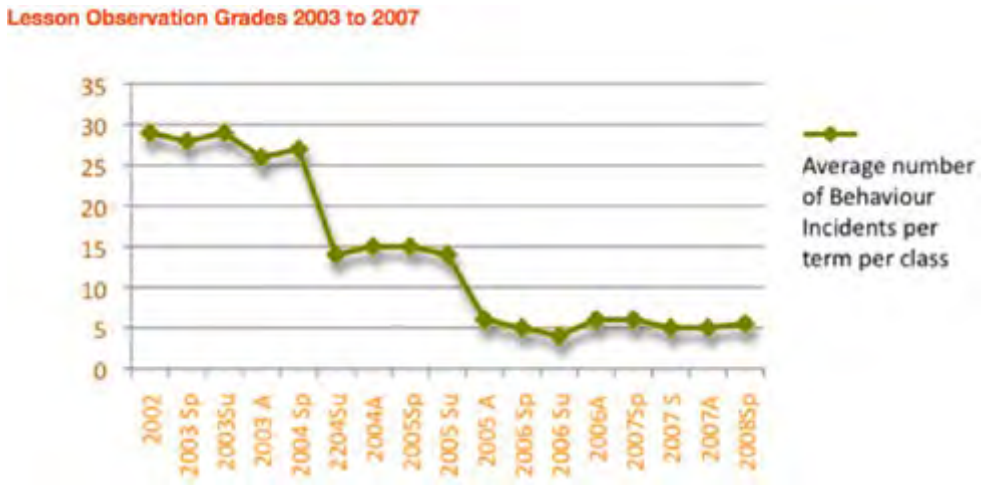
sense. I was training teachers in instructional strategies that created intense levels of engagement among all students. Being fully engaged, the students were not disruptive!

Student engagement is obtained not just by cooperative learning. The Win-Win Discipline[19] approach emphasizes enhancing student engagement via instruction and management. Efficient management means less down time and more student engagement in learning, decreasing opportunities for disruptive behaviors. Win-Win management includes class meetings, student signals, student role assignments, and student input into the discipline process. The Win-Win Discipline program emphasizes four types of engaging instructional strategies: cooperative learning, multiple intelligences, differentiated instruction, and brain-based learning to enhance student engagement. Student engagement is enhanced also by offering developmentally appropriate, relevant, hands-on, meaningful, and differentiated curriculum.

The power of engaging instructional strategies to reduce discipline problems is supported by data collected in the UK.

Prior to the introduction of cooperative learning, behaviour had been a significant challenge. Within months, the positive impact of team-based learning, supported with classbuilding and teambuilding sessions, was having a significant impact in reducing the number of behaviour incidents across school. The graph illustrates the downward trend in the number of behaviour incidents. Analysis of the behaviour incidents at the onset of the use of cooperative structures showed that while overall numbers decreased there were “new additions,” who previously had had low or no behaviour incidents, who began to have recorded incidents. A significant number of these new additions were learners who in group work could have been classified as “Hogs’” controlling and taking up the greater proportion of the talk time. Intensive teambuilding and classbuilding activities over a period of months saw these additions removed from the behaviour incidents with a further decrease in recorded incidents.[20]

A graph of behaviour incidents per term per class paints the picture:



In the UK, the Office for Standards in Education (Ofsted) is an inspection system in which inspectors grade lessons with regard to student behavior, learner progress, inclusion, and teaching approaches. The Ofsted report noted how cooperative learning produced student engagement: “It was a pleasure to see in one class both enthusiasm with which learners moved round to high five each other as part of their learning. It was just one piece of evidence of how well learners engage in learning.”

How is it that cooperative learning is so much more engaging for students? Most students come to class wanting to interact with their peers and to move. In the traditional class, they are expected to sit quietly and not interact with others. Those who have very strong needs to move or interact do so and get labeled as discipline problems. In the cooperative learning class, they are expected to interact and to move, so they can meet their need without becoming a discipline problem. Cooperative learning strategies are engaging; they allow students to do what they most want to do — interact with their peers. Engaged with the learning activities students find little opportunity or desire to become

disruptive. We will explore the power of cooperative learning to engage students in greater depth as we examine the achievement gaps and why students drop out.

Achievement Gaps

The problem of discipline and the problems of low achievement and achievement gaps are interrelated. Lack of engagement in school underpins both. A very effective, preventative approach to reduce the achievement gap, is do the very same thing that prevents discipline problems — create intense student engagement. Cooperative learning is certainly not the only way to create intense student engagement, but it is one very powerful way.

Let's examine what happens to achievement and the achievement gap when cooperative learning is introduced. Meta-analyses show that across hundreds of controlled research studies, students scoring at the 50% level would be scoring at around 75% had they been in cooperative learning classes.[21]

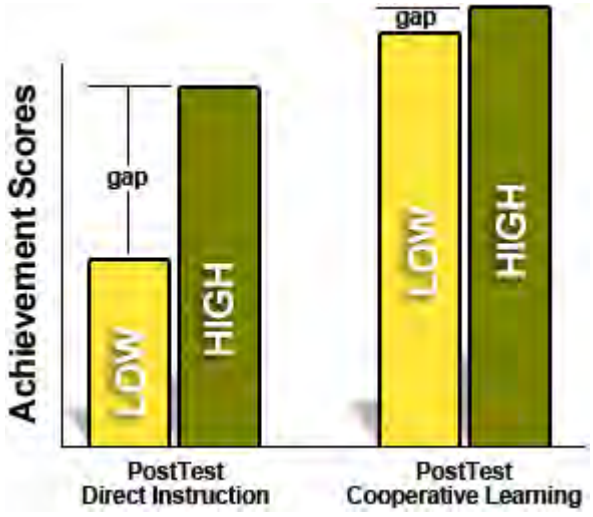
Figure 1. Meta-Analyses: Cooperative v. Traditional Instruction

Focus	No. of Effects Sizes (ESs)	Ave. ES	Percentile Gain
Cooperative Learning v. Traditional[1]	182	.78	28
Cooperative Learning v. Traditional[2]	414	.63	23
Cooperative Learning v. Traditional[3]	122	.73	27
Cooperative Learning v. Traditional[4]	104	.78	28
Cooperative Learning v. Individual Competition[5]	70	.78	28

Source: Marzano, R.J., Pickering, D.J., Pollock, J.E., Classroom Instruction that Works, Research-Based Strategies for Increasing Student Achievement. Alexandria, VA;ASCD, 2001.
1 Walberg, 1999; 2 Lipsey & Wilson, 1993; 3 Johnson, Maruyama, Johnson, Nelson, & Skon, 1981; 4 Johnson & Johnson; 5 Johnson & Johnson.

Further, more importantly for the achievement gap issue, these gains are primarily due to the gains of low achieving students. There is a dramatic catch-up effect when cooperative learning is used, closing the achievement gap.[22]

Figure 3. Cooperative Learning Reduces the Achievement Gap



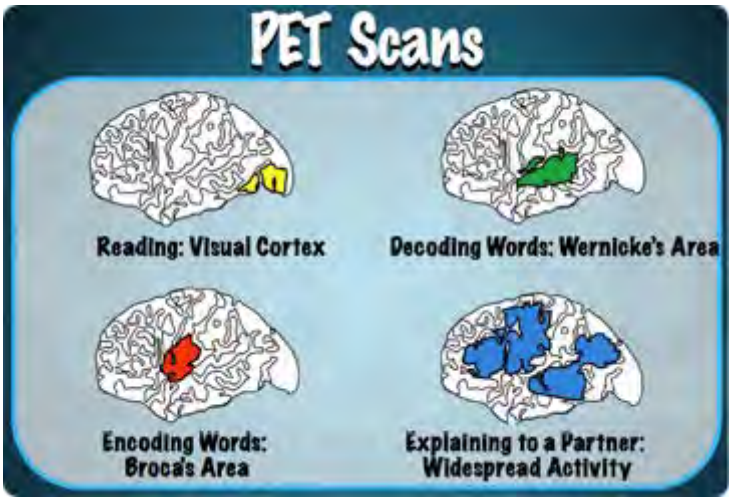
Source: Kagan, S. "Excellence and Equity." ***Kagan Online Magazine,*** Summer 2009.

It is no mystery why cooperative learning produces a dramatic reduction in achievement gaps. In the traditional classroom when the teacher asks a question of the class, the teacher calls on volunteers to

raise their hands to answer. It is the high achievers who raise their hands and the teacher calls on one. Rather than risking public failure and embarrassment, low achievers are less likely to raise their hand. Thus the teacher ends up calling most on those who least need the practice. The low achieving students become less engaged, allowing the high achievers to answer. A vicious circle is created in which low achievement leads to less engagement that in turn leads to even lower achievement. Gradually the low achievers become a subset of disengaged students. In contrast, in the cooperative learning class the teacher might use a RallyRobin or Timed Pair Share, having students give their answers to a partner. All students are engaged. There is no subset of disengaged students.

To take another example, following direct instruction the traditional teacher has students practice the skill alone on a worksheet. A low achieving student might not know how to perform, or worse yet, might think they do and practice the wrong procedure. Failing, they begin to internalize a lower academic self-esteem, which leads to less engagement and less effort in the future. This vicious circle is not created in the cooperative learning class because students work in pairs or teams so low achieving students get the immediate encouragement, support, and coaching they need. They can't practice wrong or give up. Because of the immediate support they stay engaged.

That all students are more engaged during cooperative learning is supported by brain research. PET scans reveal the brains of students are far more engaged when explaining ideas to a partner than when just listening to or simply responding to a teacher.[23]



Further, research at the cellular level shows cooperation stimulates the reward tracks in the brain. Literally brains light up when cooperating, so students find cooperative work rewarding and engaging.[24]

Dropout

The strongest predictors of dropout are poor academic achievement and discipline problems, including suspensions. A recent study found the best predictors of dropout to be: failing English I, scoring below grade level on grade 8 standardized reading tests, being retained, scoring low on math tests, and being suspended for discipline problems.[25] As we have seen, however, discipline and achievement problems are symptoms of disengagement. Clearly, then, if we create full engagement of all students, we will dramatically reduce major causes of dropout.

Perhaps we should change our terminology. Instead of "dropout," which implies the problem is a decision a student makes, we might consider "pushout," which implies the problem is the way we structure instruction. Traditional instructional strategies inadvertently create a subclass of within-class dropouts that eventually become school dropouts. Without intending, minute-by-minute as we ask questions of our class, we create winners and losers, the losers destined eventually to drop out.

The processes by which we inadvertently create winners and losers has been detailed elsewhere.[26] A teacher using traditional instructional strategies attempts to get active engagement among students by asking questions for the students to answer. For example, the teacher may ask, "Who can name a

reason for the recent financial meltdown?" Students wishing to respond raise their hands. The teacher calls on one to give the answer. During that simple interaction only the high achievers raise their hands to be called on. Lower achieving students, shy students, linguistic minority students don't raise their hands. Volunteer responding creates engagement for only the high achieving students. As we have seen, it creates a subset of disengaged students who are not included in the interaction. As that scenario is repeated day after day, without intending, the teacher has included some and excluded others, effectively creating a group of winners and a group of losers. Those who do not raise their hands become less and less engaged. Their minds begin to wander. They rationalize their lack of engagement: "This class is boring." After enough years of being a loser, the student decides not to play the game. In-class dropout eventually becomes school dropout. Or, would it be better to say, pushout?

There are a number of alternatives to the traditional instructional strategies that create full engagement for all students. Multiple intelligences instructional strategies create inclusive classrooms in which students can learn in ways that match their unique pattern of intelligences.[27] Differentiated instruction tailors curriculum and instructional strategies to ensure each student is taught in engaging ways.[28] Simple cooperative learning strategies, called structures, create engagement for all students.[29] For example, to get all students engaged when asking the question about the causes of the recent financial meltdown, instead of calling on one student, the teacher might have students do a Team Interview, Jot Thoughts, RoundRobin, RallyRobin, or even Numbered Heads Together. In all structures, all students are engaged. If the teacher chose a simple RallyRobin, students in pairs take turns naming possible causes. In the same amount of time the teacher using the traditional method could call on and respond to two or three students, each giving one answer, the teacher could have every student in the class give several answers. The meta-communication with the traditional strategy is: Some can contribute and some cannot. The meta-communication with the cooperative structure: Everyone has ideas to contribute. The cooperative structure is inclusive; there is no pushout.

Where Shall We Focus: Consequence or Cause?

We have a choice. We can treat the symptoms of disengagement, including discipline problems, achievement gaps, and dropout. Or we can walk upstream and eliminate the most important cause of those symptoms: lack of student engagement. In one case, we blame the student and attribute the problem to their culture, economic background, or personality. In the other case, we transform our instructional delivery systems to meet the needs of all learners. With a preventative rather than a treatment model, most students who would have been discipline problems become fully engaged, with no desire to disrupt or disengage. Students who would have fallen behind receive the stimulation and support they need to excel. Students, who would have been labeled dropouts, become fully engaged in the educational system, moving on to higher learning.

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