Overcoming Resistance to Kagan Structures for Engagement

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Kagan Cooperative Learning is arguably the most comprehensive and effective approach to classroom instruction. At the heart of this approach to teaching are research proven Kagan Structures for Engagement. Why doesn't every teacher use Kagan Cooperative Learning Structures? The reason most teachers don't implement Kagan Structures for Engagement is because they have never heard of them. In the United States, Kagan Professional Development provides more than 1,000 workshops a year and trains upward of 60,000 teachers annually. That's a lot of teachers, yet it is just a drop in the educational bucket. When they are trained in the Kagan Structures, most teachers make some structures part of their daily instructional repertoire. Some revolutionize their classrooms and schools making Kagan Structures their primary instructional approach—with amazing positive results. Nevertheless, some teachers who are trained in the structures do not adopt them on a regular basis and a few are reluctant to try them at all.

The question becomes: Why? During our trainings we show conclusive evidence of the power of the structures to boost achievement, reduce the achievement gap, foster acquisition of social skills and a variety of other benefits including improving language learning, thinking skills, communication skills, leadership skills, and employability skills as well as reducing the number of discipline referrals. In our workshops we practice the structures, show that they are easy to implement, and have teachers generate ways to use them in their classrooms. Yet some teachers do not consistently implement these powerful instructional strategies. Why?

The answer is resistance. Compelling research demonstrates unequivocally that Kagan Structures are a partial remedy to the most pressing challenges in education: Use of the structures boosts achievement, reduces the achievement gap,[1] dramatically improves social skills, and decreases discipline problems.[2] If the medical profession were to develop a new operational method that produced quicker and fuller recovery rates as well as lower mortality rates, refusal by a doctor to use that procedure would be viewed as medical malpractice. How then can we overcome resistance among teachers to methods with greater success rates? One way is to analyze and respond to the reasons teachers give for not trying the Kagan Structures. Thus, this article.

I am writing for three audiences. First, I am writing to those teachers who, after training, do not adopt. Second, I am writing for teachers who try the structures a few times, but do not persist in developing their own and student competence in the structures. Third, I am writing for those

teachers, trainers, and administrators who are convinced of the power of Kagan Structures, and who would like to help reluctant teachers overcome their resistance. A frequent question I get in workshops, which is echoed in our discussion boards and sent to us in letters and emails: *"I use Kagan Structures and they are great, but some teachers in my building won't even try them. What can I do?"* If you are one of those people dealing with a reluctant teacher, I provide arguments and information that can help you overcome their resistance.

The percentage of teachers who are reluctant or resistant to trying Kagan Structures, or who lack persistence in using the structures, is small. However, we have worked with literally hundreds of thousands of teachers over the decades and thus have heard a variety of fears and rationalizations some teachers express to explain their reluctance or refusal to use the Kagan Structures. In addition, before writing this paper I consulted with the leaders of Kagan's international partnerships in many different countries asking them about sources of resistance in their countries. Interestingly, each country provided different answers: In one country, those that resist the Kagan approach do so mainly because they distrust packaged solutions, feeling each teacher should develop his or her unique approach to instruction. In another country, the interpretation of "no child left behind" has been to emphasize individualized instruction to deal with struggling students, and the by product has been a move away from instructional approaches that teach the same curriculum to the whole class. All together, we have collected 24 reasons teachers give for their reluctance to try Kagan Structures.

I have categorized the reasons into four groups:
1) Fear of what might happen if I use structures;
2) The feeling that Kagan Structures are not appropriate for my students;
3) The belief that I don't need to change how I teach; and
4) The feeling that structures are too difficult for me to implement.

Some of these reasons will be relevant to your situation; others will not. My recommendation: Don't read this article from beginning to end. Rather, skim the article and read those portions relevant to your situation. This article can serve as a reference. If you or a teacher you are working with has a particular source of resistance, you will probably find it here. After presenting each reason for resistance, I provide evidence and counter arguments that hopefully will put that concern to rest. At least it might motivate you to persist in developing competence in the structures for engagement. Ultimately, of course, the only real way to put these concerns to rest is to try the structures for engagement enough times that you and your students are comfortable with them — at that point, you will find your fears unwarranted and reap the rewards of higher achievement among your students as well a greater joy in teaching.

In a final section of this article, I will suggest that many of the reasons given for resistance are really rationalizations: The resistance to trying cooperative learning structures is deeply rooted in the process of becoming a teacher. But let's leave that discussion until later. For now, let's examine and respond to the whole range of reasons teachers give for their reluctance to try the structures.

Reasons for Resistance

I Fear…

1. ***Students will get off task.***
2. ***Students will share wrong answers.***
3. ***I won't be able to cover the curriculum.***
4. ***The class will get out of control.***
5. ***If I change everything, I don't know what will happen.***
6. ***Cooperative learning is blind leading blind.***
7. ***It won't work.***

1. Students will get off task.

Because we cannot be everywhere at once, and students are interacting at the same time all over the classroom, they might get off task without our knowing it. While it is true that some students will

get off task, nevertheless we win in the bargain. Why? In the traditional classroom, when the teacher is talking or asking a question, many students are daydreaming. They are off task. The probability of their daydreaming is far less if they are interacting with a partner. In the traditional classroom, the teacher asks a question of the class, asking perhaps, "What are reasons the United States entered World War II?" Some students raise their hands to be called on while the minds of others wander. In the classroom using Kagan Structures, after asking that same question, the teacher has students in pairs do a RallyRobin. After Student A names a reason, it is Student B's turn. Student B needs to respond. The structure does not leave room for minds to wander: the students hold each other on task. This is true not just for RallyRobin, but for all Kagan Structures because all Kagan Structures are carefully designed to create equal participation and individual accountability.

With regard to getting off task, when we examine worksheet practice, the advantages of cooperative learning are even greater. In the traditional classroom, students work alone. With no one giving them feedback, they can become bored. They may have a pencil on the paper while their mind is elsewhere. They appear on task, but really are not. This almost never happens when structures for engagement are used because students take turns doing problems and receive immediate feedback. When a peer says, "It is your turn to do the next problem," it is hard to get off task.

2. **Students will share wrong answers**.

In the traditional classroom, the teacher hears and can correct any wrong answer that is verbalized. After all, as the teacher calls on one student after another, students are talking only to the teacher so the teacher hears everything that is said. When a teacher shifts to Kagan Structures, often pairs are interacting all over the room all at the same time. The teacher cannot be everywhere at once, so cannot correct all wrong answers.

This fear is justified: Wrong answers will be shared and not always corrected when we shift to having students share with each other, not just with the teacher. Nevertheless, we still come out ahead. The data shows achievement increases in cooperative learning. The question becomes, Why would achievement go up if wrong answers are shared and not always corrected? The answer is that the probability of a correction is actually greater in the cooperative learning classroom compared to the traditional classroom.

In the traditional classroom, when the teacher asks a question, some students have the right answer in their head and others do not. Who is it that raises their hand to be called on? It is the high achievers or those who think they know the answer. The lower achievers and those with the wrong answers are far less likely to raise their hands, so they are seldom called upon and usually don't get a correction. It can be argued that they get the correction when they hear the right answer from a peer. But by not verbalizing their wrong answer, they may still believe it. Further, because they are not participating, they may tune out. Thus, they can leave class with the wrong answer still uncorrected! In contrast, with the structures for engagement, every student responds. We have a norm in the class that if a student hears an answer he or she is not sure is correct, everything stops and the students check with others or with the teacher. Not all wrong answers will be corrected in the cooperative learning class, but ***the probability of a correction is dramatically greater in the cooperative learning class than the traditional class***. In the traditional class the very students who need a correction do not verbalize and so do not get the needed correction, whereas in the cooperative learning class all students are verbalizing their thinking and so have a opportunity for a correction.

With regard to correcting wrong answers, when we examine paper and pencil practice, the advantages of cooperative learning are even greater. In the traditional classroom, students do worksheet work alone. With no one giving them immediate feedback, they can practice a whole worksheet wrong, reinforcing a flawed procedure. This cannot happen in the cooperative learning class because students work in pairs or teams and receive feedback after every problem.

3. **I won't be able to cover the curriculum.**

Teachers today are under extreme pressure to cover the curriculum. Some feel there is not enough time to do cooperative learning and to cover the curriculum. In responding to this legitimate concern, I like to ask, "Who needs to cover the curriculum?" If the goal of the teacher is to cover as much curriculum as possible, the teacher needs only to stand in front of the class and talk fast! The teacher

will cover the most curriculum that way, but very little will be mastered or retained by students. Our goal as teachers isn't really to cover the curriculum. Our goal is to maximize student learning. To maximize learning, students need to be actively engaged, processing the information and practicing the skills provided by the teacher. This does take time, but the results are clear. Nearly a thousand research studies demonstrate cooperative learning leads to more mastery of the content than does traditional approaches to instruction.

One of my favorite examples of cooperating learning allowing a teacher to cover more of the curriculum occurred several years ago at our Annual Summer Academy. An elderly teacher approached me and thanked me. She said she was returning for training for the second year. The reason she was thanking me and had made the trip back to Florida for additional training was that by using Kagan Structures, she found she could cover more of her curriculum that she had ever imagined. She was a geometry teacher and had been teaching that content for over twenty years, several classes each semester. She knew exactly how many chapters she could cover in a semester. When she adopted Kagan Structures, she discovered to her surprise that in each class she covered three more chapters than ever before!

I asked her how that was possible. I asked if she did teambuilding, reformed teams, did classbuilding, brain breaks and energizers, and the other things we recommend. Her answer was yes to all those questions. I asked how, with all those extra activities, she had time to cover three more chapters.

Her response was simple. Prior to the Kagan training, in each class period she would do a demonstration of a new skill at the board and then assign homework for students to practice the skill. Being a very conscientious teacher, she would correct the homework and spend about ten minutes at the beginning of each class period going over and re-teaching frequently missed homework problems. After training in Kagan Structures, she inserted **RallyCoach** at the end of each class so students could practice and give each other feedback and coaching on the new skill. To her surprise, when she graded the homework, the students had hardly missed any problems. RallyCoach provided guided practice before independent practice. Those students who had not understood the direct instruction now were receiving a correction before going home to either practice wrong or give up. Because there were very few missed homework problems to go over, this teacher saved almost all of the ten minutes of re-teaching that she had done traditionally. Ten minutes a day, five times a week, is almost an hour. An hour a week of extra time for instruction allowed the class to cover three additional chapters a term. Cooperative learning allows us to cover more rather than less curriculum!

4. The class will get out of control.

In the traditional classroom, students don't speak unless called on. In theory, management is easy: there is no talking, moving, or interacting to deal with. In fact though, because we are trying to prevent students from doing what they most want to do—interact and move—management can be quite difficult. In the cooperative learning classroom, students are often interacting and moving. We are going with, rather than against, what students want to do so there is less resistance. Nevertheless, managing interaction and movement in the cooperative classroom involves a new set of skills. Because students are allowed to do what they most want to do: talk, interact, create things, and move there is a release of a lot of energy. The class can easily get out of control if the teacher does not have cooperative learning management tools. For example, students learn a quiet signal, so the teacher can silence the class and receive full attention in less than five seconds. Clear roles and timers ensure control within teams. Modeling with teams and using structures to check for understanding ensure directions are understood and students do not get off task. There are dozens of management tools that make cooperative learning more efficient and which allow the teacher to be fully in control at all times.

5. **If I change everything, I don't know what will happen.**

"I have been teaching using traditional methods for years. I know what to expect. So do my students. I don't know what will happen if I leap into a whole new way of teaching." This, like the other fears, is legitimate. Leaping into something new is always intimidating. My suggestion: Don't leap. Instead, ease in. Try just one simple structure and get comfortable with that. For example, after asking a question of the class simply have students turn to someone in the row next to them and pair up to do a RallyRobin or a Timed Pair Share. Then have them move their chairs back and return to the traditional class instructional methods.

While students are interacting in pairs, observe their level of engagement. Listen in to their responses. If your class is like almost every other class anywhere in the world, you will find your students more engaged with the curriculum. Do this a number of times on different days with the same structure but different content until you and the students are comfortable with the structure you have chosen. When you are ready, ease into another structure. Don't move out of your comfort zone. With time, you will become more comfortable with the structures and, seeing their positive effect, start using them more frequently. Notice: You can ease into Kagan Structures before you ever set up teams in your classroom. Many pair structures are available and you can have students pair up on a regular basis. With time, you will want to move up to teamwork structures as there are benefits that result that cannot be obtained if you just use pair structures. But pair structures, even if used only briefly, are a very powerful addition to your instructional repertoire.

6. **Cooperative learning is blind leading blind.**

Some teachers fear cooperative learning is just the blind leading the blind. *I have important things to share and I am a trained teacher; it is not appropriate to have students do the teaching.* Teachers know they know and can teach the content better than can their students, so why would we ever turn teaching over to the students? This fear is based on a misconception: That somehow when we do cooperative learning we abdicate our role as teacher. Nothing could be further from the truth. The cooperative learning structures are designed to have students review facts and master skills that have been taught by the teacher. We couple the best of direct instruction with the best of practice. Rather than have students practice alone, not getting the encouragement, feedback, coaching, and praise that improves learning, we have students work in pairs or teams to practice. But that practice follows rather than replaces the best of direct instruction. If we present information to students and do not have them process that information, the information stays in short-term memory and is soon forgotten. To move information into long-term memory students need to construct meaning. They need to think about the information, connect it to prior knowledge, question it, and interact over it. As they do, the information becomes their own and moves into long-term memory. Cooperative interaction compliments rather than replaces teacher input.

7. **It won't work.**

"I tried cooperative learning and it did not work. Why should I try Kagan Cooperative Learning Structures?" This fear is frequent among teachers who have tried other methods of cooperative learning.

Many teachers have done what they think is good cooperative learning but have just done group work. Group work is not carefully structured, so some students can do most or even all of the work while others take a free ride. Learning and engagement does not result for all students. The high achievers, who least need the practice, do most of the talking and get most of the practice while the low achievers, who most need the practice, do little or even nothing. Unstructured interaction is just group work, not true cooperative learning. Kagan Structures, in contrast, are very carefully designed so there is equal participation and each student is held accountable for her/his contribution. Unfortunately, many teachers have done some sort of unstructured group work thinking it was cooperative learning, and when they

found it did not work, they concluded cooperative learning does not work. They have not experienced the power of carefully designed structures for engagement.

These Structures Aren't Appropriate for My Students

8. ***This fun and game stuff is not appropriate for secondary and college/university.***
9. ***It is a competitive world; we need to prepare students for the real world.***
10. ***Cooperative learning makes students dependent on their group; they need to become independent.***
11. ***Students have to take the test alone; cooperative learning doesn't prepare them for that.***
12. ***Traditional competitive/individualistic instruction prepares students for college and university.***
13. ***We need differentiated instruction; students of different ability levels need to work on developmentally appropriate content.***
14. ***We need individualized instruction. Each student needs to progress at his or her own pace.***
15. ***I have special needs students. Autistic students can't cooperate.***
16. ***My students won't be able to cooperate.***
17. ***I have multi-grade classrooms and each grade has different content.***
18. ***My students don't like cooperative learning.***

8. This fun and game stuff is not appropriate for secondary and college/university.

"I am a secondary (or college) teacher (or professor). My job is not to play games; I am serious educator." Some secondary teachers and college/ university professors misperceive cooperative learning structures as appropriate only for elementary teachers. The research, as well as the experience of thousands of secondary and college teachers, does not support this. Meta-analyses reveal Cooperative Learning outperforms traditional learning at all grade levels. A great proportion of our trainings are for secondary teachers: Of the 60,000 teachers we train each year, 41% are in workshops for elementary school teachers and 28% are in workshops for secondary teachers. The remaining 30% of our workshops are mixed grade-level with elementary and secondary teachers learning the structures at the same time. The structures are grade-level free and are just as useful for secondary and elementary teachers. Whereas an elementary school teacher may have their students use a RallyRobin to name objects in the room with a right angle, a secondary school teacher may use the same structure to have students name literary techniques employed by an author. Secondary cooperative learning books rank among Kagan Publishing's most popular titles. Our book sales reflect the popularity of cooperative learning for secondary teachers: Of books that can be identified by grade level, Primary teachers purchase 19%; elementary teachers, 41%; secondary teachers a full 40%! Secondary students love the chance to interact over the content. And by interacting over the content, discussing and debating it, they make the content their own. It becomes more memorable. Secondary students in traditional schools pass from class to class in which the dominant instructional strategy is lecture. Because they are not actively engaged they become bored and find school and content uninteresting. When allowed to engage with each other over the content, students come alive. A lecture is often "in one ear and out the other." Translation: it is held in short-term memory but never moves to long-term memory because the content is not processed. When content is processed via interaction, dendrite connections are formed with prior knowledge. The content is linked to emotion, making the probability of memory dramatically greater. I taught at the University of California. My upper division classes were evaluated highest in the department and I am sure it was because students were actively engaged via cooperative learning structures. The traditional lecture format treats students as empty vessels to be filled with wisdom dispensed from the professor. Cooperative learning respects students as the active constructors of knowledge that they are. Active engagement strategies align with brain science; they respect rather than discount the intelligence and creativity of students.

9. **It is a competitive world; we need to prepare students for the real world.**

As we have moved into a high-tech workplace, collaborative skills are increasingly at a premium. No person working alone can build a computer. No person working alone can build a component of a computer. It is teams coordinating efforts with other teams that produce today's high-tech products. Collaborative skills, teamwork and communication skills, top the list of employability skills in every survey of employers.[3] Only by working with others do students acquire the interpersonal skills that lead to success in the service segment of the economy. Only by working with others do they acquire the leadership skills that predict their success in any corporation. At Kagan Publishing and Professional Development, we have worked with scores of employees. It is interpersonal skills more than technical skills that predict success among our managers. It is ability to work with others that most often predicts whether an employee gets fired or gets a promotion. This is true in almost all corporations. The ability of a corporation to compete is dependent on the ability of its employees to cooperate. The ability to cooperate predicts success also in academics. The world of research has become so technical that it is teams, not individuals working alone, that author most technical research papers. Often the authors of a single research study papers are different teams at different universities coordinating their efforts.

It is important not to fall into either-or thinking. Just because we advocate frequent use of cooperative learning structures, we do not throw out competition. There is value in competition, as well as cooperation. We do not advocate abandoning competition; we advocate including cooperation in the diet. We want a balanced rather than one-sided experience for students, knowing there are important lessons to be learned from each type of social interaction.

10. **Cooperative learning makes students dependent on their group; they need to become independent.**

Many forms of group work do allow students to take a free ride. For example, if students are assigned a project and each will get the grade of the project, then an adaptive strategy of a low achiever is to let the high achievers in the group do the project. For this reason, we advocate never giving group grades. All Kagan Structures are carefully designed to include individual accountability. Each student must make an independent contribution.

Here, too, it is important not to fall into either-or thinking. Just because we advocate frequent use of cooperative learning structures, we do not devalue individual work. There is value in individual work. We want a balanced rather than one-sided experience for students, knowing there are important lessons to be learned from each type of social interaction.

Too often after direct instruction, teachers have students leap into independent practice. Some students did not fully understand the direct instruction and struggle with the independent practice or even practice wrong. By inserting guided practice between direct instruction and independent practice with structures like **RallyCoach** or **Sage-N-Scribe,** the independent practice is much more successful.

We identify strongly with the goal of having students become independent learners. The question is how best to do that. If during direct instruction the teacher pauses to have students interact over the content, the students process the content and understand and retain the content better. Later when they work alone, they have more to draw from. They are stronger independent learners. Similarly, if they interact and give each other feedback before working alone on problems, they are more likely to do well on their own. When guided practice precedes independent practice, the independent work is more accurate and at a higher level.

11. **Students have to take the test alone; cooperative learning doesn't prepare them for that.**

Cooperative learning is for learning, not for test taking. Students need to be evaluated based on what they can do alone. But well-structured cooperative learning does prepare students for taking tests

alone. All of the Kagan Structures for engagement involve individual accountability. While students are practicing skills in cooperative learning structures, they are performing alone. For example in RallyCoach, first Student A does a problem alone, and receives feedback from her/his partner. Then Student B does a problem alone and receives feedback. In poorly structured group work, students work together and the high achiever takes over. This does not prepare the lower achieving students. Hundreds of empirical studies of the results of cooperative learning demonstrate beyond a doubt that cooperative learning does prepare students for test taking: They score higher on tests than if they worked alone in traditional formats.[4]

12. Traditional competitive/individualistic instruction prepares students for college and university.

Whereas it is true that most colleges and universities structure courses in individualist and competitive ways, that is changing. The University of Maryland, Arizona State, and MIT restructured their physics programs to include collaborative work and have tripled their gains![5] Some colleges make cooperative learning the primary mode of instruction and have abandoned traditional methods entirely.[6] The result: dramatically greater success rates. But even if all colleges and universities had no cooperative work, it is a false assumption that the best way to prepare students for college/university work would be to exclude cooperative work in elementary and secondary schools. The empirical data is clear: Students have more academic success when cooperative learning is used.[7] And students who are better prepared academically will have more success when they enter college/university. Further, studies by Uri Treisman at the University of California, Berkeley, showed that entering freshmen who formed study groups had dramatically lower drop-out rates and greater success rates.[8] Students who have experienced cooperative learning in their pre-college education are more likely to form study groups. At the highest levels of education, studying to be a lawyer or a doctor, collaborative study groups are the norm.

13. We need differentiated instruction; students of different ability levels need to work on developmentally appropriate content.

"I have students at different levels. Heterogeneous teams will drag down the high achievers." In many structures there is a natural differentiation. For example, during Timed Pair Share, each student responds to the teacher's question for a set amount of time, say one minute. If a high achiever is paired with a low achiever, there is a built-in differentiation because each responds at their level. Many of the structures for engagement allow students to respond at their own developmentally appropriate level.

In your class, if students work with different content or worksheets, during that time students can break out from their heterogeneous teams and work in pairs or groups that are homogeneous by ability level. For example, students might all be doing RallyCoach, but some pairs working on worksheets of an easier level, yet other pairs at a more difficult level, and some at a very difficult level. Students are not high, middle, or low across all curriculum content. A student who is quite high in math might be quite low in reading. To solve this problem we form different, homogeneous pairs for their math work and their reading work.

We like to offer a warning. Students live up to or down to our expectations. As Loraine Monroe says, ***"What is good for the best, is good for the rest."*** When we raise our expectations for all students, all students rise to our expectations.[9] Differentiating the curriculum should be our last rather than our first response to perceived differences in ability. Often what we perceive as differences in ability are really simply differences in performance which disappear when we structure for engagement of all students.

14. We need individualized instruction. Each student needs to progress at his or her own pace.

In some classrooms, students each work alone at their own pace through a series of workbooks or tasks. We don't have a problem if some aspects of the curriculum are individualized and students work on them alone at their own pace. In fact, this is a good learning experience both because students work at developmentally appropriate levels and learn individual responsibility. We do have a problem if individualized instruction of this type is the only kind of instruction in the classroom. There are too many important social skills that are not acquired if students never work with others.

Additionally, interaction produces intense engagement with the curriculum and the construction of knowledge. This in turn produces far better long-term memory than does memorizing for a test.

15. I have special needs students. Autistic students can't cooperate.

The research on cooperative learning in classrooms with special needs students is very clear. Three consistent outcomes are found: Compared to special needs students in traditional classrooms, special needs students in cooperative learning classrooms 1) perform better academically, 2) have higher self-esteem, and 3) are liked and appreciated more by the other students in the class.[10] This is no mystery. Special needs students integrated into traditional classrooms tend to be lost and ignored. When integrated into teams, they are included, encouraged, and tutored by teammates. It is heartwarming to see special needs students being cared about and cared for by teammates and classmates. While it is true that students with autistic spectrum disorder are a special challenge in cooperative learning classrooms, it is not true that cooperative learning is not effective or appropriate for those students. In fact, parents of autistic students report cooperative learning to be one of the most beneficial educational experiences for their students.[11] When working with students with special needs in the cooperative classroom, it is important to work with their teammates; we help teammates discover what to say and do and what not to say and do to help students with special needs. It is a positive experience for the teammates to learn how to relate to others with special needs.

16. My students won't be able to cooperate.

Years ago I had an amusing and revealing experience. I was in the Kagan booth at a large educational conference. Two teachers were walking by. As they passed, one looked up at our booth and then turned to the other teacher and said, *"That is the Kagan booth. I would like to try cooperative learning, but my students aren't cooperative enough."* I found the comment amusing because from my perspective, if students aren't cooperative, the thing they most need is cooperative learning so they can learn to be cooperative. The comment is revealing because it verbalizes a fear some teachers have: My students simply won't be able to cooperate. One of the strongest findings of cooperative learning is that students become more cooperative. Behavioral measures show students in classrooms in which cooperative learning is used display more sharing, helping, and giving.[12] Paper and pencil measures show students in cooperative learning classrooms have more social skills, have more friends, and are more empathetic. If the fear is that students cannot cooperate, the best thing to do is ease in with very simple structures that have social skills built in such as taking turns, praising, listening, and helping. Students develop core social skills in the process of learning. Students won't magically become more cooperative. They acquire those skills through daily practice.

"One of the strongest findings of cooperative learning is that students become more cooperative."

17. I have multi-grade classrooms and each grade has different content.

Teachers of multi-grade classrooms find cooperative learning to be a very powerful tool in creating a cohesive, collaborative classroom. Heterogeneous, multi-grade base teams are formed. Teambuilding within those teams overcomes the tendency for students to identify only with their students of their own grade level and prevents the higher-grade students from assuming a superior attitude toward those of the lower grade. When students need to work on grade-specific content, they break out from their heterogeneous base team and work in grade-alike teams.

18. My students don't like cooperative learning.

Some teachers try cooperative learning, meet resistance from students, and abandon the effort, concluding their students don't like cooperative learning. Resistance from students will occur if, when first introducing a new cooperative learning structure I make the content too difficult. For example, let's say I am introducing RallyRobin. If I have students RallyRobin possible new titles to a difficult poem, some students who did not understand or like the poem may well respond by saying, "That is stupid!" It is safer for them to put down cooperative learning than to admit in front of a peer that they did not understand the poem. The solution to this is to introduce new structures with very easy, fun content—content that is within the capacity of the lowest achiever in the class and which the students would enjoy talking about. So rather than RallyRobin new titles for the poem, it is RallyRobin what you would buy if you were given $1000.

Students do differ in their preference for cooperative, competitive, and individualistic work. Some students, if given the choice would work only alone. Others most enjoy competition. And yet others prefer to work cooperatively. Whichever way we initially structure the classroom, we will please some students and not please other students. If we set out to please the most students, our choice would be cooperative learning because the vast majority of students prefer to work cooperatively compared to competitively or alone.[13]

Student preferences are malleable. Students, who are initially resistant to working with others, will change their attitude and choose cooperative learning as their preferred learning mode if they have positive experiences with cooperative learning. It is not, however, for students to choose. We are in charge of structuring the classroom and our choice should be clear given that we have strong evidence that cooperative learning produces greater academic and social gains, and our job is to produce academic and social gains.

I Don't Need to Change the Way I Teach

19. ***I learned in the traditional way and it worked well for me; it can work for my students too.***
20. ***What I am doing is working; Why change? I want to serve my students, and I know what I am doing works.***
21. ***My administrator doesn't care, so why should I?***
22. ***Each teacher needs to find his or her own way of teaching. The Kagan Structures are too rigid.***

19. I learned in the traditional way and it worked well for me; it can work for my students too.

It is natural to want to give our students what has worked for us. What we need to realize is that most of the pupils in our classrooms in many ways are not like us. Most of us who succeeded in school were good at sitting still, listening attentively to lectures, taking good notes, studying those notes, retaining that content, and delivering it back on a test. We were strong in the verbal/linguistic and logical/mathematical intelligences. We came from a generation that was not inundated with electronic stimulation. In fact, for many of us the teacher's lecture was one of the most stimulating things in our environment. Further, we came from a generation in which respect for adults was a given. For today's students all that has changed. What worked for us will not work for many of today's youth. For many students today a teacher's lecture is boring compared to the high level of multi-media stimulation to which they have become accustomed. Using traditional methods we have low achieving, non-traditional learners who are failing. Collaborative active engagement instructional strategies are better tailored to the needs of students accustomed to quick paced, multi-modal stimulation — students who are much more concerned with peer status than with approval from adults.

A personal experience brought that home to me. I was asked to provide training in cooperative learning in a district that had once been very successful. The older teachers in that district had been accustomed to great success using traditional methods which relied heavily on lecture and solo worksheet work. They said the same methods were not working with today's youth. After they began using active engagement strategies they reported that students "woke up." Their students came alive, actively interacting with each other over the curriculum. One teacher said to me, "Using these strategies my students look like students use to look. They are interested and engaged. The old methods just don't work with this generation."

20. What I am doing is working; Why change? I want to serve my students, and I know what I am doing works.

If we are using traditional sit-and-get instructional strategies that do not include peer-to-peer interaction over the curriculum, even if we are successful in delivering our academic curriculum we have not served our students fully. By using cooperative structures for engagement we can do a better job of delivering our curriculum while at the same time delivering a whole additional curriculum

that includes social skills, leadership skills, emotional intelligence, and a range of thinking skills. Students cannot acquire social skills if they do not interact with others. And social skills will serve our students as much as academic skills in the job world, and in their personal lives. Why deliver one curriculum if in the same amount of time we can deliver additional curriculums? The traditional teacher who is being successful is defining success in a narrow way that won't serve students as fully as the enriched curriculum embedded in cooperative learning.

21. My administrator doesn't care, so why should I?

At one level this comment is not logical: As professional educators, we should care about best serving our students whether or not our administrator cares. At another level this comment reveals one of the most important sources of resistance to innovation. If an administrator doesn't come to the workshop, doesn't do walk-throughs, doesn't use the structures in staff meetings, and doesn't give recognition and support to teachers willing to try new ways to teach, then teachers know "this too will pass." If the site leader is not involved, the feeling among teachers is that this cooperative learning workshop was just one more workshop; there will not be a long-term commitment to making cooperative learning structures stably part of every teacher's instructional repertoire. Most teachers adopt the attitude toward an innovation that their administrator adopts. If teachers know they will be held accountable for implementing because their administrator will be watching, their attitude and behavior shifts.

If you are a teacher put off by the non-involvement of your administrator the only advice I can give is to focus on how best to serve your students and how best to create a class that not only will be successful for your students, but which will be a joy to teach. I can't count the number of teachers who have said to me, *"Before using the structures, I was looking forward to retirement. Now I am looking forward to my next day of teaching."*
If you are a teacher, or specialist who is trying to overcome resistance in your building and have an administrator who is not involved, my advice is to use as many tricks as you can to get administrator involvement. Ask if you can demonstrate a structure in the next staff meeting. Invite the administrator to watch you or a teacher using the structures and ask her or him to give you feedback on level of student engagement. Provide the administrator articles about the power of the structures. Encourage your administrator to attend a cooperative learning workshop or training for administrators. Create a newsletter to share success stories. Have the administrator listen to National Public Radio's podcast on why lectures are outdated.[14] Talk with the administrator about your excitement and ways the teachers could use support (walk-throughs, notes of appreciation, sharing of success stories).

22. Each teacher needs to find his or her own way of teaching.

The Kagan Structures are too rigid. Teachers rightfully resist being told what to do. No one wants to have to follow a script or a package that inhibits her individuality or creativity. The structures are not a package approach to teaching; they do not say what to teach and do not even say which structures to use in a lesson. They are simply options we can choose from. Teachers that know a variety of structures do not feel constrained; they feel liberated. If an artist has only a few colors and one brush, the creativity of the artist is not diminished if we offer that artist more colors and a range of different types of brushes. The structures add to the potential of a teacher to teach in creative ways. No one is scripting the teacher. No one is saying you must use this structure to teach this lesson. Rather, if that teacher knows a variety of structures, the teacher has more options to choose from. To use a different analogy, is a builder constrained or liberated when we put new and powerful tools in her toolbox? The structures are tools to help us build learning experiences; they do not constrain us. It is up to us as creative educators to determine the kind of learning experiences we want to construct.

Implementing this Structural Approach is Too Difficult

23. Change is difficult; I am comfortable in my way of teaching.

24. It is too hard and complicated to form teams and rearrange my room.

23. Change is difficult; I am comfortable in my way of teaching.

"I have been teaching for many years. I am comfortable with my lesson plans. I don't want to throw out years of hard work and adopt a new way of teaching." Some teachers think adopting cooperative learning structures means changing everything. As teachers we have invested hours over the years developing our lessons. We are invested in those lessons and don't want to throw them out in favor of some new innovation in education. In fact, though, we don't change the curriculum at all. The structures for engagement are new, engaging, research-proven ways to deliver ***the existing curriculum.*** Our focus is on the *how* of teaching, not the *what* of teaching—instruction, not curriculum. You don't have to throw out your content; with structures you simply deliver that content in some new, exciting ways.

24. It is too hard and complicated to form teams and rearrange my room.

There is no question that forming teams takes some work as does rearranging the furniture in the classroom. My recommendation to those who are hesitating to take this step is: Don't. To get started with cooperative learning structures all we have to do is use some simple pair structures. Rather than calling on one student to respond to the teacher's question, the teacher simply has students pair up and do a RallyRobin, Pair Share, or any one of the dozens of other pair structures. Again: Baby steps to start. With time baby steps will lead to bigger steps.

One way to make it easier for yourself and for your students is to introduce just one new structure, introduce it with very easy content, and use the structure repeatedly with different content until you and your students are very comfortable with the structure. Don't overwhelm yourself or your students by introducing a second structure before you and your students are comfortable with the first structure. I think of a teeter-totter with the structure on one side and the content on the other. At first, all the weight is on the structure, and there is almost no weight on the content. That is, while you and the students are learning a new structure, don't include difficult new content at the same time. For example, when first introducing a Timed Pair Share, the turns should be quite brief and the content something every student would enjoy talking about — favorite desert, movie or TV program they like, or gift they would love to get. There are two advantages of introducing a new structure with fun, easy content. First, students are not learning two new things at once; we are structuring for success. Second, there is seldom any resistance among students to talking about something they enjoy talking about.

Another hint that can avoid resistance among students is how I pair them the first time I introduce structures. Although random pairs can work just fine, I can stack the cards in favor of success if I avoid pairing two very low students, two students who have a history of being disruptive, and, if I know the students, two students who do not like each other. Once I have established some stable pairs in the class, I can occasionally have pairs pair up and introduce teamwork. Again: baby steps for you and for the students.

Some teaches who feel cooperative learning is too difficult or too complex have tried other methods of cooperative learning that in fact are too complex or difficult. Other methods of cooperative learning are lesson or project based. They involve complex lessons or projects. They take a lot of time to prepare and once the lesson is given or the project is complete, that lesson or project is "used up." That is, you only do a cooperative project or lesson one time and then have to plan a different project or lesson for the next cooperative learning activity in your class. Structures are different; they are used repeatedly. Once you know one structure, you can use it to generate an infinite number of activities with no special preparation or planning. You just plug in the new content. This makes cooperative learning easy, sidestepping extensive planning and preparation.

Reasons or Rationalizations?

Relatively recent findings in brain science provide insight that may explain the plethora of reasons given by the small minority of teachers who resist trying structures for engagement in their own classrooms. Mirror neuron research[15] reveals that every time we watch someone perform, our brains fire as if we were performing that action. We are practicing the behavior without knowing it. The probability of our performing that behavior becomes greater. Most of us discovered that pattern when we became parents: In a moment of stress, without intending, we became our mother or father as we responded to our own child. Some of us have asked, "Where did that come from?" Without knowing it, for years as we observed our own mother and father we were practicing those responses. We were forming neural tracks ready to fire in a moment of stress, patterning our behavior on the parental model we observed.

There are many implications for educators of this finding about mirror neurons, but here I want to focus on just one: Mirror neurons may explain reluctance to trying new structures for engagement. How? From the time we entered school, by watching our teachers, we were in training to become a teacher. Each time one of our teachers asked a question of the class, had students raise their hands to be called upon, and then called on one student, our brains were firing as if we had done that. Neurons that repeatedly fire together wire together. When a neural sequence fires enough times, that neural track becomes mylinated, hard wired, primed to fire. So when, after years of latent practice, we became teachers, when we asked a question of the class, we were primed to call on just one student. We ran off that sequence without forethought and without asking if that was the best way to structure the interaction in our classroom. By being students in traditional classrooms we entered the teaching profession hardwired to become traditional teachers. Mirror neurons and mylination explain the persistence of the traditional approach to instruction.

Of course this process is not conscious. And anything we are hardwired to do is very difficult to change. When asked why we do or don't do something, we often do not know the reason. In this case, we don't know we have neural tracks mylinated, ready to fire off traditional teacher responses. So when asked why we persist in the traditional approach, we look for a reason. We rationalize. Teachers resistant to cooperative learning structures find one of the two dozen reasons to rationalize their behavior. They look for a reason to explain behavior that is rooted in unconscious processes that were reinforced for years as they watched their traditional teachers.

I accept that we are hard-wired to be traditional teachers and that breaking a habit is difficult. As I have indicated above in my responses to the fears and concerns of resistant teachers, I think there is one solution to overcoming resistance: Whether you are reluctant to use Kagan Structures for Engagement or if you are trying to encourage a reluctant teacher to use them, the solution is to take baby steps. Pick the simplest structure and experiment with it. Use it a number of time. At first it will be bumpy, but with practice it will become second nature. (Translation: we rewire our brains so we automatically run off the new structure.) The most efficient way to break a habit is to substitute new, more adaptive behavior. The payoff for substituting structures for engagement for the traditional, call-on-one-at-a-time method is tremendous. Not just because we can offer so much more engagement and learning for our students, but because teaching becomes so much more of a joy when we see our students light up with enthusiasm as they master our curriculum.

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