

# INTROVERTS CAN SUCCEED WITH COOPERATIVE LEARNING

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## Abstract

I was interested in reviewing Susan Cain's (2013) "Quiet: The Power of Introverts in a World That Can't Stop Talking" for two reasons. First, as an introvert I wanted to learn more about myself. Second, I wanted to explore Cain and others' criticism that group activities in the workplace and in education are unfair to introverts. This book review contains two parts. The first part elaborates the general concept of introversion, borrowing heavily from the impressive amount of research and practical experience presented in Cain (2013). The second part addresses the criticism that teachers who use Cooperative Learning (CL) are being unfair to their introvert students.

Saya tertarik untuk menelaah buku karya Susan Cain yang berjudul "Quiet: The Power of Introverts in a World That Can't Stop Talking" karena dua alasan : pertama, sebagai seorang introvert saya ingin tahu lebih lanjut tentang diri saya; kedua, kritik tentang kegiatan kelompok dalam tempat kerja dan di tempat sekolah yang tidak fair bagi orang pendiam (introvert). Telaah buku ini berisi dua bagian. Bagian pertama mengelaborasi konsep umum tentang introversi, dengan mengacu ke sejumlah penelitian dan pengalaman praktis oleh Cain (2013). Bagian kedua, menelaah kritik tentang guru-guru yang menggunakan teknik "Cooperative Learning (CL)" itu tidak adil bagi siswa-siswa yang bersifat introvert atau pendiam.

**Keywords** : *cooperative learning, collaborative learning, introvert students, introversion*

## INTRODUCTION

*Quiet: The Power of Introverts in a World That Can't Stop Talking* is a non-fiction best seller by Susan Cain (2013), a former lawyer who now works as a consultant. Her TED talk (Cain, 2012) introducing the book had more than nine million views as of August, 2014. I was attracted to the book for two reasons. One, I am an introvert, and I hoped to learn more about myself. Two, and most relevant to the purposes of this review, group activities in the workplace and in education are criticized by Cain and others as being unfair to introverts. In my teaching to a

variety of students, I use a particular form of group activities called cooperative learning (CL), and I teach other teachers about CL.

This review has two parts. The first part discusses the general concept of introversion, borrowing heavily from the impressive amount of research and practical experience presented in Cain (2013). The second part of the review addresses the abovementioned accusation that teachers who use CL are unfair to their introvert students.

## INTROVERSION

This first part of the review begins with a discussion of introversion and the early history of its exploration in psychology. However, before that, I would like to share a quote from well-known introversion researcher Jerome Kagan (Kagan & Snidman, 2004), whom Cain interviewed during her seven years of research for the book. Kagan (cited on p. 107) makes a statement fundamental to the understanding of any human behavior:

Every behavior has more than one cause. Don't ever forget that! ... When writers and journalists talk, they want to see a one-to-one relationship-one behavior, one cause. But it's really important that you see, for behaviors like slow-to-warm-up, shyness, impulsivity, there are many routes to that.

The terms introvert and extrovert were popularized in the 1920s by psychologist Carl Jung (1971), whose work on psychological types forms the basis for the widely used Myers-Briggs Type Indicator test (Myers & Myers, 1980). As with many terms, definitions of introversion vary greatly. Table 1 (based on Cain, p. 11) presents some points which many psychologists agree differentiate introverts and extroverts.

**Table 1. Points of difference between introverts and extroverts**

<b>Introverts</b>	<b>Extroverts</b>
Tend to prefer less stimulation, e.g., being alone or with a small number of familiar people; listening to fairly quiet music.	Tend to prefer more stimulation, e.g., being with many people, including new people; riding a roller coaster.
Tend to prefer to do one task at a time; are less inclined to take risks; often proceed more cautiously.	Tend to prefer multitasking; enjoy risks; are less cautious.
Tend to prefer listening more than talking; like to think before speaking; would often rather write than speak.	Tend to prefer talking to listening; can speak well with little preparation; would often rather speak than write.

Cain emphasizes that introversion and extroversion are not either/or categories, but points along a continuum. In support of this continuum view, Cain (p. 14), quotes Jung: "There is no such thing as a pure extrovert or a pure introvert. Such a man would be in the lunatic asylum." We all have qualities of both introversion and extroversion, and, recalling Kagan's warning to avoid

simplistic analysis, many variables, such as situations and the interaction of traits, impact our behaviors. Cain estimates that anywhere between one third and one half of the population can be classified as introverts. (See Appendix for two online instruments that measure introversion/extroversion.) Additionally, the book highlights the stories of many introverts, including the author herself, who succeed at very non-introvert tasks, such as public speaking. For instance, Chapter 9 introduces Free Trait Theory (Little & Joseph, 2007), i.e., the idea that when people have a project that matters to them, they can step away from the personality traits they normally manifest and act in a different manner, i.e., extroverts can act like introverts and vice versa.

Cain also counters negative stereotypes of introverts, such as that introverts do not like people, are shy, and are selfish. Instead, she argues, introverts, just like extroverts, enjoy the company of others, but in different ways and different contexts. Furthermore, introverts can be empathetic and caring. Indeed, the listening that introverts do may help them better understand and help others.

The early 20<sup>th</sup> century, according to Cain, saw a shift in Western culture in which the status of introversion declined, as extroversion became the ideal. As a result, increasingly over the past 100 years, introverts have been made to feel deficient. The extrovert as ideal trend has spread internationally, with implications in many areas of life, such as in the workplace and, as will be discussed in detail later, in education. Cain's goal in writing the book was to help everyone better appreciate the introverts in their lives and the introvert within themselves. For example, Chapter 2 of the book is entitled "The myth of charismatic leadership," and research on the value of introverts as leaders is cited (e.g., Khurana, 2002).

### **Introverts and Cooperative Learning**

The second and final part of this review of *Quiet* focuses on how education programs can meet the needs of introverts, and at the same time help introverts and extroverts learn to adapt their behaviors to fit different contexts. As readers will recall, Cain's thesis is that society overvalues extroversion and undervalues introversion, and as a result, society attempts to make introverts feel inferior and to force them to act like extroverts. Chapter 3, "When collaboration kills creativity," presents research and anecdotes that suggest that learning, productivity, and creativity, in education and in workplaces, may suffer when people are pushed to learn and work together.

As an example of a failure of group process, Cain recounted a time when a class of Harvard Business School students did a task which called for them to develop a list of equipment that would be needed in a particular survival situation. Groups' success on the task was measured by how close their lists were to those developed by experts. One particular group did poorly on task despite having a group member with substantial experience in the particular survival situation. This failure resulted because the experienced group member was an introvert whose voice was drowned out and ignored by the extroverts in the group.

Despite Cain's criticism of groups, she does see the benefits of cooperation, e.g., please note the word "When" in Chapter 3's title, "When collaboration kills creativity." Indeed, a significant body of research suggests that

cooperation promotes thinking (e.g., Chan, 2013) and that cooperation is especially useful in more difficult tasks (e.g., Kuhn & Crowell, 2011). Nonetheless, educators who use cooperation in their teaching may well wish to listen carefully to Cain's arguments about why cooperation can hinder thinking and stifle introverts.

### **Background on Cooperative Learning**

Cooperative learning (CL) (Johnson & Johnson, 1999; Slavin, 1995), also known as collaborative learning, receives several mentions in *Quiet*. CL began to become known in education in the 1970s, and is now known, perhaps by other names, by teachers of students of all ages and in many countries. For instance, in Singapore, where I teach, I very seldom meet primary or secondary school teachers who have not heard of CL, by one name or other.

CL fits with the overall shift to student centered instruction based on theories that see learning taking place as students construct knowledge in social contexts, such as with peers and others in the societies where they live (Vygotsky, 1978). Research suggests that CL can have a host of cognitive and affective benefits, including higher scores on standardized tests, more creativity and other forms of higher order thinking, greater self esteem, enhanced inter-ethnic relations, and more liking for school, peers, and teachers (Smith, Sheppard, Johnson, & Johnson, 2005).

Many definitions have been proposed for CL. One definition is "principles and techniques for helping students learn with peers and others" (Jacobs & Kimura, p. 4). While definitions of CL differ, all of them seem to agree that doing CL involves much more than a seating arrangement, much more than asking students to form groups and then work together. For instance, Michael Power, who headed curriculum in a school district in the northwest US, once told me (Power, personal communication) that in most classrooms he knew about, CL was implemented more as a furniture arrangement than a learning arrangement. The next section of this review argues that well structured CL can provide a productive environment for introverts.

### **How Cooperative Learning Can Meet Introverts' Needs**

The definition of CL cited above talks about principles and techniques. In this section, seven of those principles are explained, along with techniques for implementing the principles.

**Maximum Peer Interactions.** This principle has two aspects. The first is maximum quantity of peer interactions. Classrooms have perhaps four main modes of interaction: (i) whole-class, such as teacher lectures or the viewing of a video, with little or no student activity other than listening, watching, and note taking; (ii) whole-class teacher-led discussions, with one person in the entire class talking at any one time, and that person usually being the teacher; (iii) students working together in groups, as in CL; and (iv) the class of students working alone. Of course, these modes can be combined, as in teachers lecturing, pausing for students to discuss in groups, followed by teacher-led whole-class discussion and then students working alone.

Students are requested to talk only in the second and third modes of classroom interaction. However, in terms of the stress of speaking, the anxiety would seem to often be much less in the third mode, i.e., when students speak in small CL groups. Thus, CL may provide a more congenial environment for introverts.

Maximum peer interactions seeks to maximize the number of these less stressful interactions, and this is done by having more group activities and using smaller groups, including groups of two. Indeed, groups of two may often be the superior group size. For instance, at a workshop on CL I once attended, facilitated by David Johnson, one of the most prolific CL researchers and writers, he used the phrase, "It's impossible to be left out of a pair." Many CL techniques can be done in pairs. For instance, in Circle of Speakers (which can also be done in three or fours), students take turns to give their ideas on a topic or task. Later, one group member may be asked to share their group's discussion with the class. Even here, even though students are speaking to the whole class including the teacher, stress potentially falls, as the students' responses potentially represent not their own ideas but the joint products of their discussions with their partner.

Another meaning of the word "maximum" in Maximum Peer Interactions involves the quality of those student-student interactions. Quality interactions involve the use of thinking skills and collaborative skills. For instance, a collaborative skill which promotes the thinking skill of explaining is Asking for Reasons, i.e., when partners give ideas, students are encouraged to ask them to provide reasons to support their ideas.

However, students may not want to interact if the task is particularly difficult. Therefore, teachers need to ask themselves whether sufficient support has been provided so that students will feel sufficiently confident to take part in activities. Means of providing this support include supplying annotated examples of properly completed tasks and pre-teaching important concepts and terms. The next CL principle, Heterogeneous Grouping, offers another means of supporting student participation in CL groups.

**Heterogeneous Grouping.** Beyond the potential benefits of CL in increasing students' learning and their thinking abilities, lie the social advantages of students from different backgrounds working together as equals toward common goals. Such heterogeneous groups can consist of members who differ on such variables as mother tongue, nationality, ethnicity, religion, sex, social class, diligence, personality, and, last but not least, past achievement. Jigsaw (Aronson, 2014) is a well known CL technique specifically designed to bring diverse students together. Jigsaw has many variations, but the basic procedure has four steps: (1) Each student joins a heterogeneous group of about four members. This is their Home Group, and each Home Group member receives unique information, often in the form of a reading passage different from but related to the passages of the other members of their Home Group ; (1) Students leave their Home Group and form an Expert Group of about four members with students from other Home Groups who have the same passage. The task for the Expert Groups is to read their passage and perhaps do additional individual research (something they can do alone), make sure that all their fellow Expert Group members understand the passage, and prepare to teach it to their Home Group members; (2) Students return

to their Home Groups and take turns to teach their information to their Home Group members; (3) Students do a task, alone or in a group, that requires information taught by each of their Home Group members. Thus, students are dependent on their groupmates to teach them vital information.

Most guides to CL recommend that most often, groups that stay together for more than an activity or a day be heterogeneous. Of course, which variables are used in forming heterogeneous groups will depend on the composition of each particular class. In terms of making tasks doable for all students, heterogeneity as to past achievement can provide students with people, in addition to their teachers, to assist them if they struggle.

**Positive interdependence.** Jigsaw, explained above, encourages students to feel that the outcomes of the group members are positively correlated, i.e., what helps one group member helps all, and what hurts one group member hurts all. For instance, in Jigsaw, if group members do a good job of teaching their unique material to their Home Group members, everyone can perform better on the task in the final step of Jigsaw. Positive interdependence is the term used in the CL literature for this feeling among group members of positively correlated outcomes. Another way to explain positive interdependence is as a feeling among a group that its members sink or swim together. Thus, if students see their groupmates sinking, they will care; they will want to help. The hope is, referring back to Cain's discussion of Free Trait Theory, that introverts and extroverts will be willing to temporarily change for the good of the group, e.g., introverts will be willing to teach their Home Group members in Jigsaw, and extroverts will give introverts a chance to do their teaching.

**Cooperation as a Value.** This principle seeks to take positive interdependence and extend that caring feeling beyond the small classroom group to encompass the entire class, the entire school, and on and on, in ever expanding circles of concern. Again, this principle links to how, with sufficient motivation, people can move beyond traits such as introversion and extroversion. For instance, Cain recounted how, in order to spread her message of the value of introversion, she overcame her deep seated fear of public speaking, a fear that seemed to her to be worse than the fear experienced by her husband, when as a peacekeeper in Africa, he and his fellow peacekeepers were engaged in a firefight.

One means of promoting cooperation as a value among students and teachers lies in focusing on the reasons why students are learning. Are they learning for personal gain, e.g., to have a career that will earn them status and luxury, or do students appreciate how what they learn can benefit society? John Dewey, a philosopher of education from the first half of the 20<sup>th</sup> century, emphasized this point: "There is no greater egoism than that of learning when it is treated simply as a mark of personal distinction to be held and cherished for its own sake. ... [K]nowledge is a possession held in trust for the furthering of the well-being of all" (1934, cited in Archambault, 1964, p. 12).

**Equal Opportunity to Participate.** This principle seeks to address the legitimate worry that some students, perhaps often the introverts in the group, will be left out of group activities, as other students, perhaps often the extroverts, dominate group discussion and decision making. Techniques for promoting Equal Opportunity to Participate include: (1) giving students time to think first before

interacting with one or more partners. For instance, many CL techniques include a Think or Write step, e.g., the technique Write-Pair-Switch. Here, students form groups of four divided into pairs. First, each works alone to write their ideas. Second, they discuss their ideas with a single partner. Finally, students switch partners and report their previous discussion to a different member of the foursome. Steps such as Think and Write can come at differing points in CL activities; (2) the internet provides an introvert friendly means of communication (Amichai-Hamburger, 2005). In poorly managed face-to-face discussion, introverts may not have a chance to speak, and when they do speak, they may not be loud enough to be heard amidst all the extroverts. Fortunately, the internet, especially asynchronous communication, provides introverts both the opportunity to be heard and equal "volume" for their utterances. Cain (p. 63) offers the following example:

The same person who would never raise his hand in a lecture hall of two hundred people might blog to two thousand, or two million. ... The same person who finds it difficult to introduce himself to strangers might establish a presence online and then (*italics in original*) extend these relationships into the real world.

(3) Roles are another means by which CL attempts to provide all group members with equal opportunity to participate. Many roles can be utilized in group activities, some more mechanical, e.g., timekeeper and materials monitor, some more concerned with group functioning, e.g., facilitator and quiet captain (who reminds the group not to speak too loudly), and others more focused on the quality of group discussion, e.g., controversy creator and elaboration elicitor. People who tend to dominate discussion might benefit from trying the role of encourager, the person charged with encouraging all group members to take part.

Please note that this principle is equal opportunity to participate, not equal participation. It would probably not be congenial to the temperaments of either introverts or extroverts to mandate that all group members speak for exactly the same amount of time. Introverts may wish to silently think and listen for a while, but whenever they are ready, their right to be heard remains at their disposal, so that introverts, like extroverts, have opportunities to share and develop their ideas by sharing. Furthermore, teachers and groupmates should not jump to the conclusion that introverts' silence indicates lack of interest or the intent to avoid their obligations as group members.

**Teaching collaborative skills.** Many group roles, such as encourager, link with collaborative skills, i.e., skills needed for mutually successful interaction with others. Teachers cannot assume that all students, even adult students, have these skills, or even if students have these skills, teachers cannot assume that students will use them. Therefore, many guides to CL recommend that time be devoted to teaching collaborative skills and to focusing student attention on use of the skills.

Many collaborative skills could help introverts feel more comfortable when learning in groups. In addition to previously mentioned skill of encouraging others to take part in group activities, other relevant skills include: (1) Waiting patiently, e.g., when introverts, who tend to proceed more cautiously, need more

time to think; (2) Praising and thanking others for their contributions to the group. One reason that Cain gives for why groups often fail is "evaluation apprehension" (p. 89), worry that one's contribution will be scorned by group members. In contrast, a group environment alive with sincere and specific praising and thanking may encourage introverts to participate more; (3) Disagreeing politely creates a less stimulating atmosphere with less of the tension and acrimony often provoked by disagreement, an atmosphere in which introverts may feel more willing to take part in the vital process of honing ideas.

**Individual accountability.** Cain cites social loafing, i.e., one or more members not doing their fair share, as a prime cause of unsuccessful groups. In contrast, when all group members feel individually accountable to the group, the more purposeful atmosphere that results may be more congenial to introverts. Three of the ways that CL can be used to encourage individual accountability are: (1) Although the group spends time studying together, students are graded only on work they do alone; (2) As in the CL techniques Jigsaw and Circle of Speakers, each group member has a designated turn to participate; (3) Tasks require different abilities, and the group members who are currently best in those abilities have responsibility for coaching and teaching others, rather than doing the work for them. For instance, a multiple ability task (Cohen, 1994) might require writing skill, presentation skill, acting skill, skill with particular software, and skill in role playing, not to mention skill at managing group interaction.

### **How CL Might Benefit Introvert Teachers**

Although this review has focused on how CL principles and techniques facilitate group experiences in which introvert students can fully and happily participate, introvert teachers deserve a mention. In Chapter 9, Cain recounted the case of one such teacher, actually a professor, Brian Little, the developer of Free Trait Theory. Although definitely an introvert, when teaching, Little was able to transform himself into a twirling, singing, joking crowd pleaser, a winner of a major teaching award, whose courses were consistently over subscribed.

One humorous story that Cain told about the introverted Professor Little took place after he had retired and he and his wife were living alone on a farm in rural Canada. He would occasionally travel to do full day workshops, but during the lunch break, he needed to be away from everyone to recharge. When he could find nowhere better to retreat, Little hid in a stall in the restroom, and when his eager workshop participants spotted him by seeing his shoes, he was forced to find peace by spending lunchtimes hiding in a stall with his feet up.

Perhaps, Professor Little would benefit by using group activities, as such activities provide opportunities for teachers to transform themselves from the role of Sage on a Stage to the equally valuable role of Guide on the Side. Indeed, using group activities does not mean that teachers are lazy. When students are doing group activities, teachers do not take out their phones and check what has been happening on Facebook. Being a facilitator, knowing when to observe and when to intervene, learning from how students interact and what they say to each other involves many important skills.

In Chapter 2, Cain cited the workplace research of Grant (2011) who found that with passive employees, an extroverted leadership style may often be

best, but with active employees, an introverted leadership style allows employees more scope for initiative. Introverts listen. According to Cain (p. 57), introverted leaders "create a virtuous circle of proactivity." Isn't that what we hope to foster with students, and don't groups help foster student proactivity? Thus, properly functioning groups offer introverted teachers a chance to temporarily step down from the stage and offer proactive students, buttressed by the support of their groupmates, opportunities to take the stage.

## CONCLUSION

In conclusion, this review of *Quiet: The Power of Introverts in a World That Can't Stop Talking* began by attempting to briefly summarize the author's explanation of introversion, including the fact that introversion has come to be stigmatized in Western society. Cain has written a well researched, well reasoned book filled with stories which bring the author's ideas to life. The second part of the review was a reply to some of the reasonable criticisms that Cain raised regarding the use of group activities. The review discussed ways that group activities can benefit all students, including introverts.

Of my two purposes in reading the book, the first was to better understand myself as an introvert. This purpose was achieved, as I now appreciate the various dimensions of introversion, and why I feel the way I feel in various situations. I also find myself feeling less apologetic for refraining from situations, such as large groups, at the same time that I understand that I need to try to enjoy such situations more.

My second purpose in reading *Quiet* was to think about how to create environments that enable introverts to thrive in group learning contexts. While I believe that the ideas presented in this review are useful, I realize that much remains to be done. For one, the CL principles and techniques require patience, skill, and like minded colleagues to implement. Second, cultural attitudes need to change. Many students and teachers I talk to, regardless of whether they are introverts or extroverts, have negative attitudes towards group activities, and too many people generally have negative attitudes towards introverts. Therefore, I urge my fellow educators to join me in striving to facilitate learning environments in which students all along the introversion-extroversion continuum can succeed and enjoy.

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## **APPENDIX**

### **Online Instruments Measuring Introversion/Extroversion**

- [http://psychologytoday.tests.psychtests.com/take\\_test.php?idRegTest=1311](http://psychologytoday.tests.psychtests.com/take_test.php?idRegTest=1311)  
Takes about 25 minutes
- <http://www.thepowerofintroverts.com/quiet-quiz-are-you-an-introvert/> 5 mins