



# Collaboration Technique Cards

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Integrated throughout the Common Core State Standards are opportunities for students to learn through collegial conversations and collaboration with their peers. Teachers should look to the Common Core State Standards for guidance on specific focus skills, paying specific attention to the appropriate grade-level standard corresponding to ELA Speaking and Listening Standard 1: "Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively."

Depending on the grade level, specific skills to isolate, model, teach, and practice include:

- "follow agreed upon rules for discussion"
- "build on others' talk"
- "ask questions to clear confusion"
- "come to discussions prepared... draw on that preparation"
- "explain *own* ideas in relation to discussion"
- "link remarks of others"
- "review key ideas"
- "acknowledge new info and, when warranted, modify own views"

The same standard calls for students to "participate in collaborative conversations" in various scenarios:

- "with peers and adults"
- "in small and larger groups"
- "through multiple exchanges"
- etc.

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Thus, in-class activities should provide many opportunities to practice the skills stated in the standard in various scenarios.

Another benefit to using the collaboration techniques within these cards is that they will likely help students further develop social awareness and interpersonal skills which aligns with Goal 2 of the IL Social and Emotional Learning Standards (Use social-awareness and interpersonal skills to establish and maintain positive relationships).

The following easy-to-use collaboration technique cards list specific strategies to add structure and novelty to in-class conversations among peers. Toward the goal of student engagement, these strategies can and should be adapted to meet the needs of the students, assignment, and specific learning goal.

After using any of these techniques, it is good practice to review the activity reflectively with the whole class by discussing questions like:

- What worked well?
- What were some challenges the team faced?
- How did the team address those challenges?
- What could the group do differently to improve the function of the team?
- How did the group work contribute to individual learning?

3

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## Table of Contents

Audience Reaction Team .....	6	Phillips 66.....	40
Brainstorming.....	8	Reciprocal Peer Questioning.....	42
Carousel/Graffiti Brainstorming.....	10	Reciprocal Teaching.....	44
Cube It.....	12	Role Play.....	46
Debates.....	14	Round Table.....	48
Fish Bowl.....	16	Send a Problem.....	50
Group Writing Activity.....	18	Stir The Class.....	52
Head to Head Write Off .....	20	Structured Controversy.....	54
Jigsaw.....	22	Talking Chips.....	56
Numbered Heads Together .....	24	Think Aloud Pair Problem Solving.....	58
Online Collaboration Tools .....	26	Think—Pair Share.....	60
Paired Annotations.....	32	Three Step Interview.....	62
Pairs Check.....	34	Turn 4 Review.....	64
Paraphrase Passport.....	36	Walking Tour/Gallery Tour.....	66
Peer Editing.....	38	Resources.....	68

4

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# *Audience Reaction Team*

The audience reaction team is a group of three to five members of the audience who react to a speaker. They are allowed to interrupt, respectfully, the speaker to seek immediate clarification of anything that is not clear. This can also assist the speaker in meeting the needs of the audience. This technique can be used to help when the subject matter could be difficult to understand or to provide instant feedback from audience to speaker.

Reference/Resource: *Audience reaction team*. (2011). Retrieved from <http://educationalspice.com/wp-content/uploads/2011/02/Audience-Reaction-Team.pdf>

5

## **Supplies:**

Adequate seating so every member of the audience may comfortably see and hear the speakers. A stage or a slightly raised platform large enough for the speakers, leader, and members of the reaction team.

## **Preparation:**

1. As early as possible the speaker(s) should be informed that this technique would be used. The speaker should give his/her permission prior to using this technique.
2. The students should have prior understanding of how the reaction team should participate. This can be accomplished with direct instruction or modeling the appropriate actions and behaviors.

## **Procedure:**

1. The teacher introduces the topic.
2. Audience team representatives are chosen. They should not be timid or theatrical, as either of these extremes will invalidate the effects of the method.
3. Members of the audience team should be representative of the larger group academically. This will so they will reflect the entire group in their need for clarification.
4. When necessary, individuals on this team react with the speaker(s) seeking definition, clarification, etc., even when this occasionally means interrupting a speaker.

(Suggested grade levels 6-12)



# Brainstorming

Brainstorming is a technique in which creative thinking takes precedence over the practical thinking. The purpose of this activity is to allow students to think freely, and write down all of their ideas without making judgments about them. The participants are encouraged to be as “free wheeling” and uninhibited as possible.

Reference/Resource: Flowers, N. (2000). *The human rights education handbook: Effective practices for learning, action, and change*. University of Minnesota.

**Supplies:**

Provide appropriate places and ways to record ideas based on the content or activity involved. This could include flip charts, chalk or white boards, Post-Its, or large monitored computers. Provide a mental and physical environment that allows for creativity.

**Ground Rules for Brainstorming:**

1. All ideas are welcome. There are no wrong answers. During brainstorming, no judgments should be made of ideas.
2. Be creative in contributions. Every point of view is valuable.
3. Teams should contribute a high quantity of ideas in a short amount of time.
4. Participants should make connections with other participant's ideas.

**Preparation:** The Problem Statement presented by the teacher:

1. Needs to be specific enough to help participants focus on the intent of the session, but it must be open enough to allow innovative thinking.
2. Should not be biased, so it favors a particular solution or excludes creative ideas.

**Roles:**

There are three roles for participants in a brainstorming session: facilitator, recorder, and team member.

The facilitator should be a person that is a good listener. The recorder needs to record every idea presented. All team members need to participate during the entire activity.

**Procedure:**

1. Before the session, the facilitator needs to clarify the statement to help the others on the team focus on the reason for the brainstorming.
2. During the session, the facilitator will need to relay the ground rules of the session, and to orchestrate the session.
3. A time limit is set for 20-25 minutes. Sometimes it is effective to call time and then allow five more minutes.
4. The teacher stops the group activity when there is still excitement. Do not force the group to work.
5. The facilitator guides the group to generate as many ideas as possible.
6. The recorder should note all suggestions made. The recorder should use the speaker's own words. If the speaker's idea is long, the facilitator may need to summarize it. The recorder should check with the speaker to make sure of the accuracy.



# *Carousel / Graffiti Brainstorming*

This strategy has students accessing prior knowledge about a topic or subtopics within a broader based topic through movement and conversation.

*Reference/Resource:* Lipton, Laura, and Bruce Wellman. *Patterns and Practices in the Learning-Focused Classroom*. Guilford, VT: Pathways Publishing, 1998.

## **Supplies:**

Chart paper, Markers, Clock (timer or watch)

## **Procedure:**

The teacher writes problems, formulas, sentences to be edited, or ideas to brainstorm on pieces of large chart paper and post around the room. Students move in small groups from chart to chart.  
OR

The teacher provides a piece of chart paper to each group of three or four students. Students work at their tables and the charts move from table to table.

In Either Scenario:

1. Each group works on a different question, topic, issue, or statement related to the topic being studied and writes responses or "graffiti" which can be short words, phrases, or graphics on their chart paper to express their thoughts and opinions.
2. After the allotted time, the students or the charts move.
3. The process is then repeated until all groups have reacted to all charts.

The charts are posted . Students respond and reflect on the statements or topics, identify patterns, and/or make predictions based on what is written/drawn on the charts.

## **NOTES:**

- ✦ This strategy can be used any time during a lesson or unit. At the beginning, the teacher and the students can find out what they already know.
- ✦ In the middle of the lesson, it is a useful way the teacher and the students to check on their learning. At the end of study, it can serve as a great review for an exam or even for predicting what might be on the assessment.
- ✦ Individuals or groups can use different color markers to track submissions....group A is Blue, group B is green...etc.



# Cube It

Cube It is an interactive review of a common class reading assignment such as a science chapter, novel, social studies chapter, mathematical concept, or current event.

Reference/Resource: Frey, N., Fisher, D., & Everlove, S. (2009). *Productive group work : How to engage students, build teamwork, and promote understanding*. Alexandria, VA: ACSD.

11

## Supplies:

Paper, Six-Numbered Cubes, Pencils

## Procedure:

Students complete a class reading assignment and then move to assigned collaborative discussion groups. The group is provided with a six-numbered cube that will be rolled to determine which of the six questions each student will answer. The six question topics are...

1. Describe it
2. Analyze it
3. Apply it
4. Take a Stand
5. Reinvent it
6. Choose a different perspective

The students fold a paper into 6 sections (in half/long ways, then in thirds.) The sections are then numbered 1-6.

The first student rolls the cube to determine which question will be answered first. The group *discusses* the question to determine a group answer. Each student writes the group answer in the appropriate section of the paper. This process continues until all six topic questions are answered.

At the end of the activity, the class meets as a group for discussion. At that time, any group member may be called to answer any of the 6 questions.



# Debates

Students persuasively discuss a (teacher) pre-determined topic. If done well, debates can promote critical thinking and engage an entire class in a topic.

Reference/Resource: Barkley, E., Cross, K. P., & Major, C. (2005). *Collaboration learning techniques*. San Francisco, CA: Jossey-Bass.

13

## Supplies:

Paper, Pencils, Topics, access to resources such as books or the internet

## Procedure:

Effective debates can promote critical thinking and they can engage an entire class to be interested in a topic:

1. The teacher chooses an interesting and/or "hot" topic in your grade level, subject matter, or current event.
2. Students take sides on the issue and group in different areas of the class.
3. The groups prepare an argument or statement of defense. (pro or con)
4. The groups then choose someone as a spokesperson (or the teacher can choose someone randomly) to start their side of the debate.
5. The floor is then given to the entire group for the discussion

## NOTES:

If the group seems to have no opinion, or they are one-sided on the issue, the teacher might need to stage the discussion by putting the students into groups and randomly assigning a side.



# *Fish Bowl*

Fish bowl is a technique used in classrooms where group dynamics are important. This technique allows for a deeper discussion of any given topic. It helps build a sense of community and focuses the attention on the ways that a group might work together more productively. In a language arts classroom, it can demonstrate how groups can collaborate to construct meaning from a text. They model peer literature circle discussions as students analyze a text and connect their responses with others.

Reference/Resource: Barkley, E., Cross, K. P., & Major, C. (2005). *Collaboration learning techniques*. San Francisco, CA: Jossey-Bass.

15

## **Supplies: NONE**

### **Procedure:**

A small group of students arrange themselves in a circle in the center of a room. This is called the fish bowl section of the collaboration. This small group has a discussion together while the rest of the students watch. The outside circle can take notes, and later pose questions and give comments about what they observed. Teachers should select students for the fish bowl who are skilled at group discussion -- or might deliberately choose one or two who are new to it so that the fish bowl does not seem too "perfect" for those who are observing. Once the group is established, the teacher should set some ground rules. Students might initially be self-conscious as part of the group "on stage," but they generally grow more comfortable as the conversation flows.

Ground rules might include:

- Students within the "bowl" should only state supported ideas, agree with a speaker and add supporting information, disagree with a speaker and offer refuting information, or connect contributions.
- The speaker has uninterrupted time to complete their answer.
- Everyone gets a chance to speak prior to a speaker taking a second turn.

The guidelines for the outside circle: listen quietly, take notes on discussion skills, and note nonverbal communication. Each "outside" student might be assigned an "inside" student to observe or the "outside" students can be asked to observe everyone.

To begin the discussion, the teacher or a student within the fish bowl offers an open-ended question, and the fish bowl group discusses it.

After a set time of discussion, the outside students discuss what they observed. This may take the same amount of time as the fish bowl discussion itself, or more. The teacher invites the outside students to add their thoughts to the fish bowl conversation. The inside students listen and then respond to the comments. The inside students can reflect on the discussion first or after the outside students respond.



# Group Writing Activity

This activity allows students to practice creative writing using narrative tenses. The product is typically a funny story written by at least seven students or pairs of students from their class.

Reference/Resource: Barkley, E., Cross, K. P., & Major, C. (2005). *Collaboration learning techniques*. San Francisco, CA: Jossey-Bass.

**Supplies:** Paper and pencils

**Procedure:**

1. The teacher announces to the students that they are going to write a story together.
2. The teacher passes out a blank sheet of paper. Students write their names on the top of the paper.
3. The teacher tells the students the subject of their stories. (e.g., aliens) The students will write their answers to the teacher's questions on the top of the paper. The teacher questions will be who/what/when/where/how questions.
4. The teacher asks the first question, e.g., "When did you see the alien?" The students will write their answer to this question under their name.
5. After the students have completed the answer for the first question, they fold the paper over so that their answer cannot be seen and then they pass it to the student/s on their right.
6. The teacher asks the second question and the procedure is repeated with the remaining questions. Here are some additional questions might be:
  - Who were you with?
  - What were you doing?
  - What did the alien look like?
  - What did you do when you saw the alien?
  - What happened in the end?
7. The students should not read what the previous student/s has written.
8. When the students have completed all the questions, tell them to open and pass it to the person whose name is written on top.
9. Have the students to read their stories.
10. Ask a few students to read theirs to the class

*A great holiday*

*Meeting someone famous*

1. What famous person did you meet?
  2. Where did you meet them and who were you with?
  3. What was the famous person wearing and how did he/she look (e.g. glamorous/ taller than I thought/ not too beautiful)?
  4. What was he/she like? (e.g. friendly/ funny/ annoyed)
  5. What did you do when you saw the famous person?
  6. What happened next? ( e.g. He/she signed an autograph/walked away)
1. Where and when did you go?
  2. Who did you go with?
  3. Describe the place you went to.
  4. What did you do there? (e.g. snowboarding, trekking, swimming, climbed Mt. Everest)
  5. What sights did you see? ( e.g. The Eiffel tower, the Pyramids, the Great Wall of China)
  6. What was the weather like?



## *Head to Head Write Off*

This activity involves a two person interactive “written” collaboration that will transition into a verbal discussion with one’s partner, followed by a classroom discussion in which various arguments and supporting evidence are shared. The anticipated outcome is more thoughtful, rigorous, and substantial discussions.

Reference/Resource: *Cooperative group work*. (n.d.). Retrieved from <https://sites.google.com/a/jefftwp.org/groups/the-planning-steps/positive-interdependence/head-to-head-write-off>

19

### **Supplies:**

Paper and pencil, clipboards possible

### **Procedure:**

1. Students are divided into partners. They move the desks together in a face-to-face arrangement.
2. The teacher assigns a topic and poses a question.
3. Each student reflects on the question and responds to it in writing for two full minutes .
4. When time is finished, partners exchange papers and they have two more minutes to read what their partner has written. They will then respond to it in writing.
5. This process is repeated creating a back and forth written dialogue. ( A time limit or number of times to respond can be set by the teacher.)
6. Following the exchanges, the partners are given up to 5 minutes to talk about their responses and clarify opinions. The teacher may want to remind students of appropriate agreement, disagreement, and connecting stems.
7. The whole class can then have a discussion that is at first guided by the teacher. The teacher may want to remind students of appropriate agreement, disagreement, and connecting stems. A few examples of positive dialogue stems include:

"One thing \_\_\_\_\_ and I agreed on was \_\_\_\_\_ because \_\_\_\_\_"

" One thing we disagreed on was \_\_\_\_\_ because \_\_\_\_\_"

Notes: **This interaction lends itself very well to controversial topics in high school Social Studies classes.**



# Jigsaw

Jigsaw is used as an efficient means to learn new materials. This process encourages listening, engagement, and understanding by allowing each member of the group a critical part to play in the academic process. Team members must work together to accomplish a common goal; each team member depends on all the others in order to successfully complete the task.

Reference/Resource: Barkley, E., Cross, K. P., & Major, C. (2005). *Collaboration learning techniques*. San Francisco, CA: Jossey-Bass.

21

## Supplies:

Paper and pen/ pencil, appropriate research materials

## Procedure:

1. Students are divided into 5- or 6-person groups. This initial grouping of students will be called the "jigsaw" group.
2. One student is appointed from each group as the facilitator.
3. The lesson is divided into 5-6 pieces (or matches the number of students in the "jigsaw" group). For example, if it is a science class learning about biomes, the lesson might divide the Rain Forest Biome into: A. Vegetation; B. Soil; C. Climate; D. Carnivores; E. Consumers; F. Insects.
4. Each student is assigned to learn one piece, making sure students have access to their own information.
5. Students should be allowed time to read over their piece at least twice and become familiar with it.
6. Temporary "expert groups" are formed by having one student from each "jigsaw" group join other students assigned to the same piece.
7. The expert groups should discuss the main points of their piece and create a presentation that they will make to their "jigsaw" group.
8. The students are brought back into their jigsaw groups.
9. Each student is asked to present her or his expert piece to the "jigsaw" group. Others in the group are encouraged to ask questions for clarification.



# *Numbered Heads Together*

Numbered Heads Together is used to activate prior knowledge, content thinking skills, assess mastery, as well as information sharing, as well as assess mastery.

Reference/Resource: Kagan, Spencer. *Cooperative Learning*. San Juan Capistrano, CA: Kagan Cooperative Learning, 1994.

## **Supplies:**

Timer , Forms necessary for activity

## **Procedure:**

1. Students are grouped into teams of 4 (a quad).
2. Students in each quad are given a number: 1, 2, 3, or 4.
3. The teacher states a question and says, "Numbered Heads Together". Quad members discuss the question. They must make sure that any member of the team can answer the question when the discussion is done.
4. After a specified time has passed, the teacher asks the question again followed by a number (1,2,3, or 4).
5. Only the students having that number in each of the different quads state the answer to the question, building individual accountability and positive interdependence. This may be done with only one student in class responds (teacher selection) or for instance, with all the number 3 students responding, or using an every pupil response technique. Some every pupil response techniques might involve holding up cards A, B, C, D or individual white boards.
6. The process of question/answer is repeated.



## Online Collaboration Tools

The following is a list of online tools to assist in incorporating student collaboration techniques within the classroom. These website tools are for teacher and student use for classroom activities.

The list also includes several global connection websites to incorporate worldwide collaboration activities.

*\*The following resources for cooperative and collaborative learning environments are additional resources and do not constitute or imply endorsement or favoring by the Illinois State Board of Education. The views and opinions expressed within these websites do not necessarily reflect those of the Illinois State Board of Education.*

25

### **Google Docs (Teachers and Student use)**

Upload files, edit anytime from anywhere, choose who can access documents, share, and collaborate online.

### **iNetword.com (Student use)**

Students can create *any* document using point-level formatting, indents, margins, backgrounds and borders, choice of bullets, numbering, spell check, pictures, and more. Share folders, documents, and pictures. View highlighted changes others made. Revert to the original document with one click. Your document is *never* overwritten.

### **Showdocument.com (Student use)**

Students can launch or join a fully synchronized document collaboration session. Students can upload a document and invite friends.

### **Crocodoc.com (Student use)**

Students can mark up, fill out, and collaborate on PDFs, Word documents, PowerPoint slides, and web pages.

### **Google apps for education (Teacher and Student use)**

(apps.google.com)

At this site, there are email and collaboration tools for educators and students at all levels.

### **Wiggio.com (Student use)**

Wiggio allows the creation of collaborative groups to get together online and edit documents. The groups have an ongoing feed that shows messages and work that is being done within the group. Group emailing is included as is online virtual meetings.

### **Haikulearning.com (Teacher and Student use)**

Teachers can use this Learning Management System to create online lessons with articles, images, audio, and video for your class. Educators can also manage discussions, auto-grade assessments, and track scores through a grade book.

### **Vyew.com (Teacher and Student use)**

Teachers and/or students can give presentations, host webinars, or conduct team meetings. Content can be left available for team members to access over time. Individuals can upload docs, images, or media. There are options for on-line chatting or talking. Course content can be created or uploaded for real-time and anytime collaborative learning.

### **Debategraph.org (Student use)**

This website is a debate visualization tool to help groups think through complex topics by building and sharing dynamic, collaboratively editable, and ratable maps of subjects from multiple perspectives to increase the transparency and rigor of political debate around the world. <sup>27</sup>

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### **Collaborizeclassroom.com (Teacher and Student use)**

The teacher can complement classroom instruction and engage students in online activities, assignments, and discussions that allow for deeper participation inside and outside the classroom with this website. Embed Microsoft Office documents, videos, pictures, and PDFs. Publish discussions to a results page so students can see tangible outcomes of their conversations.

### **Goorulearning.org (Teacher and Student use)**

Teachers can create class or subject spaces, access resources and ready to use lesson plans. The website allows students can collaborate within these spaces.

### **21classes.com (Teacher and Student use)**

Teachers can create a virtual classroom and Blog Portal.

### **Edmondo.com (Teacher and Student use)**

This is a micro blogging platform that teachers and students can use to send notes, links, files, alerts, assignments, and events to each other. Teachers sign up for accounts, and then create groups. Students then sign up (no email address required) and join the group using the unique code.

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### **Kidblog.org (Student use)**

This blog website allows students to publish posts and participate in discussions within a secure classroom blogging community. Teachers maintain complete control over student blogs. No student email addresses required.

### **Classblogmeister.com (Teacher and Student use)**

This blog website has been developed specifically for classroom use.

### **Epals.com (Student use)**

This website is a provider of collaborative technology for schools to connect and learn in a protected, project-based learning network. The website makes it easy to connect learners locally, nationally or internationally.



## *Paired Annotations*

In Paired Annotations, two students compare their personal impression or commentary on an article, story, or chapter.

*Reference/Resource: University of Berkeley- group work. (2011). Retrieved from <http://gsi.berkeley.edu/teachingguide/sections/groupwork.html>*

31

### **Supplies:**

Articles or sections of a chapter to discuss

### **Procedure:**

1. Instructor or students identify a number of significant articles on a topic.
2. Each student is given one article to read—several students may have the same article. There should be an even number of students reading each article for pairing purposes.
3. Each student individually writes a reflective commentary on that article.
4. Students are randomly paired with another student who has written a commentary on the same article.
5. The two partners read each other's commentaries, comparing key points to their own commentary.
6. The two student teams write a commentary based on a synthesis of both their papers.



## *Pairs Check*

Pairs Check is a procedure to help students check each other's work and process/collaborate with a partner. The pairs can also connect with other pairs to review understanding in a team environment. This is a way to structure pair work in all subjects and all topics to build not only mastery, but also the ability to encourage others appropriately and give constructive critiques. It also gives students practice in receiving constructive critiques and making adjustments.

*Reference/Resource:* Kagan, S. (1992). Cooperative learning. San Juan Capistrano, CA: Resources for Teachers

33

### **Supplies:**

Worksheets

### **Procedure:**

1. This is a way to structure pair work on mastery-oriented worksheets.
2. Students work in teams of four with two sets of partners.
3. The worksheet is set up with problems presented in pairs.
4. The first person in each partnership does the first problem with the pair partner serving as coach, and offering praise as appropriate.
5. After the first problem is done, partners change roles. After each pair of problems, teams of four checks each other's work and, if they agree, give a team cheer or handshake.
6. In this way students stay on task, working together toward mastery.



## *Paraphrase Passport*

Paraphrase Passport provides a structure for reading, processing and restating written text. This technique allows students to practice both speaking and listening skills. It also lets individuals know how their ideas are heard by others, and can give them cues regarding their communication skills.

*Reference/Resource:* Kagan, Spencer. *Cooperative Learning*. San Juan Capistrano, CA: Kagan Cooperative Learning, 1994.

35

### **Supplies:**

An area for students to sit and face each other

### **Procedure:**

1. This technique should be modeled as a whole group exercise prior to using as a small group exercise.
2. The teacher places students in small (3-7 students) groups.
3. The teacher gives each group a topic to discussion...i.e., the next science subject or a current event.
4. The teacher gives a list of “starter” questions to each group.
5. Once the discussion has started, permission to talk is given when the student is correctly paraphrasing the person who has just spoken. After a participant shares an idea, another participant must correctly restate that idea in his/her own words before contributing his/her own idea.
6. Everyone in the group must have contributed before a student can make a second contribution.



# *Peer Editing*

Peer editing is an anonymous way of allowing students to edit other student writing without knowing who wrote the text.

*Reference/Resource:* Kagan, S. (1992). Cooperative learning. San Juan Capistrano, CA: Resources for Teachers

37

## **Supplies:**

Copies of students writing, Editing matrix

## **Procedure:**

1. The teacher collects a first draft of a writing assignment.
2. The teacher makes a photocopy of each paper and identifies it with a number instead of the student's name.
3. The teacher hands out and discusses the editing matrix form to be used in this activity. The students should be familiar with this matrix prior to using it.
4. The teacher gives each student in the class an anonymous paper to edit.
5. The teacher collects the edited papers. The class can then discuss editing in general.
6. The teacher returns the edited papers to the student writer.



## *Phillips 66*

The Phillips 66 technique, also known as buzz groups, can be used to review homework assignments, instructions, upcoming events— basically, any item that may need more review and clarification.

*Reference/Resource:* Barkley, E., Cross, K. P., & Major, C. (2005). *Collaboration learning techniques*. San Francisco, CA: Jossey-Bass.

39

**Supplies:**

None

**Procedure:**

1. The teacher selects six students in the class and asks them to go to the front of the classroom.
2. The teacher states a question about the homework, the reading, or any other pertinent subject or an upcoming event.
3. The six students have six minutes to discuss/clarify the topic in front of the class to help the class understand.



## *Reciprocal Peer Questioning*

Reciprocal Peer Questioning is a group collaboration strategy used after an outside reading assignment has been given and completed in order to review the subject.

*Reference/Resource: University of Berkeley- group work. (2011). Retrieved from <http://gsi.berkeley.edu/teachingguide/sections/groupwork.html>*

41

### **Supplies:**

None

### **Procedure:**

1. The teacher assigns an outside reading assignment to the class.
2. The teacher asks students to generate a list of two or three thought-provoking questions of their own on the reading.
3. Students bring the questions they have generated to class. Students do not need to be able to answer the questions they generate.
4. The teacher places students into teams of three to four.
5. Each student poses his/her questions to the team and the team discusses the reading using the student-generated questions as a guide.
6. The questions of each student are discussed within the team.
7. The team selects two key questions to report to the class.



# *Reciprocal Teaching*

This learning activity involves students teaching one another in a group setting. Students jointly read a text or work on a task. Students take turns being the *teacher* for a section of the text or task. In their role as teacher, students lead discussions, summarize material, ask questions, and clarify material.

*Reference/Resource:* Palinscar, Anne-Marie, and Ann Brown. "Reciprocal Teaching of Comprehension-Fostering and Comprehension-

## **Supplies:**

None

## **Procedure:**

1. The teacher divides students into small groups.
2. The students jointly read course material (e.g., primary source, article, artifact) or work on a task. If jointly reading a text, the teacher should model how to read a text in a group prior to the activity beginning.
3. Students take turns being the "teacher" by leading a discussion on a segment of text or related to a specific task.
4. The "teacher" summarizes the segment of text or the work product, asks questions, and adjusts the summary following the discussion.
5. A new "teacher" is selected and the process is repeated until all of the material has been covered.



# Role Play

Role Play is an activity where the students specifically act out or assume characters in order to accomplish the learning goals. This can help students become more involved with the subject matter.

Reference/Resource: Barkley, E., Cross, K. P., & Major, C. (2005). *Collaboration learning techniques*. San Francisco, CA: Jossey-Bass.

45

## Supplies:

None

## Procedure:

1. The teacher divides students into pairs.
2. Each student in each pair is assigned the role of a character, scientist, or leader from the subject matter being studied...i.e., the biology field, character in a novel...etc.
3. The teacher has the pair write a conversation between their characters pertaining to a specific problem or issue.
4. The students will "present" their discussion topic to the entire class.

## Example:

Choosing characters from two different books written in the same era or condition, e.g., WWII, poverty, etc. Students discuss how their character faced things differently. What was happening in their area of the country during that time?



## Round Table

A round table technique can be used for brainstorming, reviewing, or practicing while also serving as a team builder. Students take turns responding to a prompt with one or two words written on a paper before passing it on to the next student.

Reference/Resource: Barkley, E., Cross, K. P., & Major, C. (2005). *Collaboration learning techniques*. San Francisco, CA: Jossey-Bass.

47

### **Supplies:**

Paper, Pencil

### **Procedure:**

#### Sequential form:

1. The class is divided into groups of three or more. Each group should have one piece of paper and one pencil.
2. The teacher asks a question that has multiple answers.
3. Students alternate writing one answer on the paper, then pass the paper and pencil clockwise to the next person, each writing their answer to the question.
4. After a predetermined time, students stop writing and review their answer to look for duplicate entries. The students count the number of correct answers and the teams with the most correct answers are recognized.
5. Teams reflect on their strategies and consider ways they could improve.

#### Simultaneous form:

1. The class is divided into groups of three or more. Each student should have a piece of paper and pencil.
2. The teacher asks a question that has multiple answers.
3. Each student writes one answer, and passes their paper to the right, so several papers are moving at once.

\*An accommodation to help students not proficient at writing you could modify the group as follows:

1. The class is divided into groups of three or more with one piece of paper and one pencil.
2. A recorder will be assigned in each group.
3. The teacher asks a question that has multiple answers.
4. Students will respond orally and the recorder will record the responses.
5. After the round table, students discuss and summarize the ideas generated and report to the class.



## *Send a Problem*

Send a problem is a strategy for team and class collaboration on any subject where the students start the problem and compare / contrast answers throughout the classroom.

Reference/Resource: Barkley, E., Cross, K. P., & Major, C. (2005). *Collaboration learning techniques*. San Francisco, CA: Jossey-Bass.

49

### **Supplies:**

Index cards, Pencils

### **Procedure:**

1. The class is divided into teams of 3 –5 students.
2. The teacher asks each student on each team to write a review problem on an index card.
3. Student teams will share the problem cards within their team.
4. Student teams will reach a consensus on an answer for each card, and write the answer on the back of the card.
5. Student teams will stack the index cards and pass to the group on their right.
6. Student teams —as a whole- then attempt to find an answer to the problem and turn the card over to check to see if they agree with the sending team. (If not, they write their answer as an alternative answer on the index card.)
7. Students continue to send stacks of cards to a third and fourth group, until they are finally returned to the original team.
8. Students will discuss the alternative answers given by the other teams.

### **NOTES:**

This can be conducted in all subject areas....math problems to civil liberties in history class can be discussed and written on the cards. Card sizes can be anything from 3x5 to 5 x 7 to meet the needs of the subject.



## *Stir the Class*

Stir the class is a strategy that uses question and answer collaboration with rotating students.

Reference/Resource: Billmeyer, Rachel. *Strategies to Engage the Mind of the Learner: Building Strategic Learners*. 2nd ed. Omaha: Rachel & Associates, nd.

51

### **Supplies:**

None

### **Procedure:**

1. The class is divided into groups of 4 (quads). Each person in the quad then receives a number (1,2,3, or 4). Quad members stand shoulder to shoulder around the room leaving space between each quad.
2. The teacher poses a question to all the quads.
3. Student quads huddle together to discuss the answer to the question posed.
4. Quad members stand shoulder to shoulder again when they have an answer.
5. The teacher calls a number (1, 2, 3, or 4) and direction (right or left) to identify the selected participant. (Example: "#2 to the Left")
6. The selected participants (#2) then rotate or move to the quads on their left or right—depending on the direction called by the teacher.
7. The student then shares the answer that their previous quad came up with to the question. (Example: This means that quad member number 2 in each of the quads must move two quads to the left and state an answer to the question posed.)
8. The teacher repeats this process until all review questions are complete.



## *Structured Controversy*

Structured controversy is a mini debate formatted strategy consisting of two student teams within a group of four students.

Reference/Resource: Barkley, E., Cross, K. P., & Major, C. (2005). *Collaboration learning techniques*. San Francisco, CA: Jossey-Bass.

53

### **Supplies:**

Materials that provide information on the subject or controversy to be used.

### **Procedure:**

1. The teacher identifies a controversial topic and gathers material that gives information and background to support different views of the controversy.
2. The class is divided into groups of four.
3. Students work with one other student, forming two sets of pairs within the group of four students.
4. Each pair of students takes a different side of the issue presented by the teacher.
5. Student pairs can work outside of class or in class to prepare to defend their side of the issue.
6. Student groups of four meet, and each pair takes a turn stating and arguing its position, while the other pair listens and takes notes without interrupting.
7. Student pairs must have a chance to listen, take notes, and argue their position.
8. All four students collaborate in order to teach each other all sides of the issue.
9. Student pairs must then change their original side and defend the other side of the issue.
10. The student group of four discusses and synthesizes all of the positions to come up with a group report. The report can be something turned in or a whole class discussion where each group presents its findings.



# Talking Chips

Talking chips is a collaboration technique using “chips” or markers to ensure that all students are participating and others are not dominating the discussion.

Reference/Resource: Barkley, E., Cross, K. P., & Major, C. (2005). *Collaboration learning techniques*. San Francisco, CA: Jossey-Bass.

55

## Supplies:

Chips—any marker item (pencils, cardboard chips, tokens, etc.)— 2 per student maximum

**Rule:** Each student may only speak one time until ALL other students have spoken. Then, each student may speak again once all team members have placed a chip in the center.

## Procedure:

This procedure should be modeled to the class as a whole before beginning in groups.

1. The class is divided into groups of 3-6 students.
2. The teacher hands out 2 "chips" to each student.
3. The teacher provides a discussion topic for class/group.
4. Any student may begin the discussion within the group by placing his or her chip in the center of the team table.
5. The student group continues to discuss the topic, with each student placing one chip in the center of the circle/group each time they talk.
6. When a student is out of chips, they have to wait until they can collect them to talk again.
7. When students have used all the chips, teammates collect their chips and continue the discussion using their talking chips.



## *Think Aloud Pair Problem Solving*

### *TAPPS*

Think aloud pair problem solving is a collaboration technique that emphasizes the process of the work instead of the product. This will help a teacher and students to identify the thought processes used when solving problems.

*Reference/Resource:* Barkley, E., Cross, K. P., & Major, C. (2005). *Collaboration learning techniques*. San Francisco, CA: Jossey-Bass.

57

#### **Supplies:**

Paper, Pencil

#### **Procedure:**

1. The class is divided into pairs and informed of the rules for each of their roles:
  - A. Problem solvers: students talk aloud while solving a problem explaining their reasoning and process as they go through the problem.
  - B. Listeners: students engage the problem solvers and ask them to think aloud asking for clarification as needed.
2. The teacher poses a problem for each group of students or for the class as a whole.
3. Students work in pairs and alternate roles as stated above to solve the first problem.
4. The teacher calls time and asks each listener to state the answer to the problem and a short version of the process the problem solver used.
5. The teacher can repeat the process and reverse the roles.



## *Think– Pair Share*

This is a four-step discussion strategy which incorporates wait time and aspects of cooperative learning. Students learn to LISTEN while a question is posed, THINK (without raising hands) of a response, PAIR with a neighbor to discuss responses, and SHARE their responses with the whole class. Students are able to rehearse responses mentally and verbally, and all students have an opportunity to talk.

Reference/Resource: Barkley, E., Cross, K. P., & Major, C. (2005). *Collaboration learning techniques*. San Francisco, CA: Jossey-Bass.

59

### **Supplies:**

None

### **Procedure:**

1. The class is divided into pairs.
2. The teacher asks an open-ended question or poses a problem to the students.
3. The students are given a time limit in which they **MUST** ponder the answer.
4. The teacher asks students to discuss their answer with their partner.
5. The teacher reviews by calling on different pairs to share their answers.

### **NOTES:**

- ◆ This activity helps to relieve anxiety because of additional preparation and rehearsal time.
- ◆ Time limits and transition cues help discussions move smoothly.



## *Three Step Interview*

This is a structured group activity with students using interviews/listening techniques that have been modeled. This structure can be used as a team builder, and for opinion questions, predicting, evaluation, sharing book reports, etc.

*Reference/Resource:* Barkley, E., Cross, K. P., & Major, C. (2005). *Collaboration learning techniques*. San Francisco, CA: Jossey-Bass.

61

### **Supplies:**

Paper, Pencil

### **Preparation:**

1. Teacher instructs on and models interview/listening techniques prior to activity.
2. Teachers provide interview questions or students develop their own questions.

### **Procedure:**

The teacher may need to prepare interview questions prior to the activity depending on the grade level of the students.

1. Students are paired up with another student.
2. One student interviews another about an announced topic.
3. The teacher sets a time limit and calls time when complete. Students switch roles as interviewer and interviewee.
4. Student pairs then join to form groups of four.
5. Students take turns introducing their pair partners and sharing what the pair partners had to say.



## *Turn 4 Review*

Turn 4 review is a team discussion and answer session for review or to check for understanding.

*Reference/Resource: Cooperative group work. (n.d.). Retrieved from <https://sites.google.com/a/jefftwp.org/groups/the-planning-steps/positive-interdependence/turn-4-review>*

63

### **Supplies:**

Review questions on a sheet of paper, overhead, or a smart board

### **Procedure:**

1. The teacher divides the class into groups of 4 (quads).
2. The students number off (1,2,3,4) within each quad.
3. The students select a quad captain.
4. The quad captain chooses a team member to select and read a review question to the group.
5. Students think about how to answer the question.
6. The quad captain chooses a team member to answer the question.
7. That team member orally answers the question posed.
8. The quad captain leads a discussion to collaborate on the correct answer.
9. The quad captain chooses a member to either (a) praise the member for answering the question correctly or (b) help the member understand the correct answer to the question.
10. The students, in round robin fashion, choose the next quad captain.
11. Students continue the process until all members have had the opportunity to be the quad captain.



## *Walking Tour/ Gallery Tour*

Walking/Gallery tour is a strategy that utilizes visual/chart representations of content material displayed in the classroom that is reviewed/discussed by collaborative groups.

*Reference/Resource: Cooperative group work.* (n.d.). Retrieved from <https://sites.google.com/a/jefftwp.org/groups/the-planning-steps/positive-interdependence/walking-tour-or-gallery-walk>

65

### **Supplies:**

Materials to make five to eight posters

### **Preparation:**

Teacher makes five to eight posters that represent the content material, either by pictures or text. One idea should be conveyed per chart. For example, for a study of Germany, charts might contain postcards, phrases in German (Deutsch), and/or a map of Germany.

### **Procedure:**

1. The teacher posts the charts/posters around the room, numbering each one.
2. The teacher divides students into "touring groups" . The groups should fit the classroom space, age of students, and/or difficulty of the material.
3. The teacher assigns one group per poster to begin their tour.
4. Student groups spend two to five minutes at that chart, taking notes on, and/or discussing the idea presented.
5. The teacher moves the groups until all groups have "toured" each chart.
6. Student groups find a seating area to discuss the posters and their notes.
7. The teacher will allow time for the discussion.



# Resources

These and many more techniques can be found using a basic web search and even many Pinterest boards.

The following are resources for cooperative and collaborative learning environments....

Collaborative Resources for the Classroom **DISCLAIMER:** The external hyperlinks included in this document are additional resources and do not constitute or imply endorsement or favoring by the Illinois State Board of Education. The views and opinions expressed within these websites do not necessarily reflect those of the Illinois State Board of Education.

67

## **Edutopia**

<http://www.edutopia.org/pbl-research-learning-outcomes#definition>

### **Project-Based Learning Research Review**

Edutopia reviews and explores research for PBL through articles that address learning outcomes and recommendations of evidence-based strategies for the successful implementation of PBL. They provide best practices for all subject areas, in addition to providing step-by-step research based strategies for project learning activities. Edutopia also discusses the power of collaborative learning, and downloadable resources for teachers.

## **Buck Institute for Education**

<http://www.bie.org/tools/freebies>

### **Project Based Learning for the 21st Century**

The Buck Institute for Education (BIE) provides tools to improve 21st Century teaching and learning in the classroom by creating and offering products and practices for effective Project Based Learning (PBL). BIE's contribution to Project Based Learning is through research, services, and online learning. They support K-14 teachers by publishing books and articles for implementing PBL. In addition to books and articles, BIE offers workshops, instructional coaching, and research-based projects that are proven effective in the classroom. They also offer online resources such as "how to" videos and sample projects, and lastly, BIE has created free materials (FreeBies) for teachers to access to assist in designing, managing, and implementing collaborative projects.

## **The Project Approach**

<http://www.projectapproach.org/>

The Project Approach is a site managed by educator and author Sylvia Chard. The Project Approach is a type of PBL that offers numerous advantages and best practices to any 21st Century classroom. It provides resources and tools for teachers whose students have a strong interest in exploring and discovering new concepts. The Project Approach also enables students to interact, question, problem-solve, and communicate in a collaborative learning environment. This site also assists with developing and implementing collaborative projects, as well as provides examples of classroom projects. They provide information about professional development and offer a study guide that helps teachers in understanding the applications of The Project Approach.

## **The National Education Association**

<http://www.nea.org/tools/16963.htm>

The National Education Association (NEA), is the nation's largest professional organization for educators, and is consistently working to advance public education in the United States. The NEA has reviewed research on PBL, and has provided links of articles and resources that K-12 teachers can utilize in the collaborative classroom.

## ***Classroom Aid: Connecting the Dots for Digital Learning***

<http://classroom-aid.com/technology-resources/collaboration/>

Classroom Aid is a site that is focused on providing insightful online ideas and links that educators can utilize for collaboration in the classroom. The main goal for Classroom Aid is to enable K-12 teachers to connect, collaborate, and create.

## ***Thirteen Ed Online: Concept to Classroom:***

<http://www.thirteen.org/edonline/concept2class/coopcollab/>

Concept to Classroom is a Thirteen Ed Online resource that concentrates on how collaboration is a useful tool for engaging students within a group setting. The concepts and techniques discussed in this article open up the opportunity to improve learning in the classroom, as well as increase student engagement.

## ***Cooperative learning: Effective teamwork for Engineering Classrooms***

<http://fie-conference.org/fie95/2b5/2b54/2b54.htm>

This site discusses how teaching and working in small groups help to promote learning amongst peers, and increases a student's ability to become more critical thinkers. It expounds upon collaborative groups working cohesively to accomplish specific goals or tasks, and offers strategies to assist in accomplishing those goals. It further discusses the accountability of students within groups, and taking ownership of the roles they have been assigned in an activity.

69

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## ***Prince George's County Public Schools Guide to Cooperative learning:***

<http://www.pgcps.pg.k12.md.us/~elc/learning1.html>

Prince George's County Public Schools have a resource web page that discusses cooperative learning and how it can benefit students in the classroom. They further elaborate on the elements of collaborative learning, in addition to offering various strategies and techniques that can be utilized in the classroom.

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