

Collaboration Protocols

1. COLLABORATIVE BRAINSTORMING (Collaboration, Discussion)

Description: This is a role-assigned group method for generating original ideas and promoting higher-order thinking.

Application: Use this method when students need to expand project ideas, determine problem solutions, or review and revise answers. It can also be used as a frontloading activity.

Process: Introduce the subject to be brainstormed. Form groups of three and assign roles within group.

Organizer: contributes ideas and sets parameters for group and keeps work session flowing.

Scribe: contributes ideas and writes down every idea so that all team members can see.

Presenter: contributes ideas and shares group list with whole class.

Direct the students to brainstorm for the allotted time. Bring class back together so that each presenter shares list. Lead class discussion with a focus on prioritizing top responses.

2. EXPERIENTIAL EXERCISE (Collaboration, Discussion, Reading)

Description: In this energizing activity, students act out a scene from a book, novel, or historical event.

Application: This protocol allows students to show their interpretation of a scene, reading, or event to others.

Process: Have students read from a specific source and, in groups, create a five-to-seven-minute skit based on the reading. Assign the roles with scripts provided, encouraging prop use and directing each student to wear his character's name card while acting out the scene. To add additional rigor to the protocol, pass out an index card with assigned role and allow student actors to write their own script. In order to guarantee that essential information is covered in the skit, provide guiding questions. When the group presents skit, give the "audience" a copy of the questions to answer as they view the skit.

Janice Sutton, CCECHS

3. M-O-T-I-V-A-T-E!! (Collaboration, Discussion)

Description: Students will constantly form new groups as students move to another team to share answers and to work problems.

Application: This strategy is best used when students need to compare information.

Process: Form groups of three. Tell each student within a group to number off. Give same problem to solve for each group. After a period of time, instruct only the "number 1 student" to "motivate" (move) to the next group to the right. Then, direct the students to compare and discuss solutions with new group. At end of discussion, if the solutions match, instruct students to place in green envelope. If the members of the group cannot reach a common solution, then place the problem in the red envelope and tell them that this problem will be reviewed. (This new group gets question number two; they collaborate and solve.) Instruct number two student to take the group's answer, move two places to the right and repeat, reminding students to place solutions in appropriate envelopes. Tell student number three to move three groups to the right. Repeat process as necessary.

Sherman Sumpter, CCECHS

4. WORD WEBBING (Collaboration, Discussion, Writing)

Description: This structure allows students to create a visual representation of their learning.

Application: Word Webbing is a graphic prewriting or review activity.

Process: Hand out a poster-sized sheet of paper to each group of students. Ensure that each member of the team has a different colored marker. Present the topic to students. Direct them to simultaneously break the topic into parts and further find multiple connections among ideas and/or processes, recording them on the poster paper. Emphasize that each student must contribute to the group effort, as noted by the color of pen. Direct all groups to present the word web and to be fully prepared to justify answers.

5. GALLERY WALK (Collaboration, Discussion, Writing)

Description: This systematic approach allows students to work together in groups in order to expand, elaborate on and share their ideas with others.

Application: A gallery walk is used when students need to answer critical questions.

Process: Develop several questions/problems and post each question/problem at a different table or at a different place on the wall. Assign each group a different color marker that the group uses throughout the entire activity. Allow one to three minutes to respond to each topic and after the allotted time, shift students to the next "station." Repeat this procedure until all charts have been visited by all groups. In whole group, review chart content by asking students to judge which response was the most important point from all charts and explain the reason.

6. GRAFFITI WALK (Collaboration, Feedback, Writing)

Description: This protocol resembles the "Gallery Walk," except the information is more foundational.

Application: The Graffiti Walk works very efficiently as an anticipatory set, a closure activity or an energizer during any lesson where recall of facts is desired.

Process: Divide students into groups of three or four. Give each group of students chart paper and a marker color unique to their group, one marker per student. Announce the topic and allow all students to write on their chart paper at the same time, resembling graffiti, for three to five minutes. Stop students and post efforts on the wall. Ask students to make a comparison of the charts.

7. USING TECH: COLLABORATIVE ANNOTATION (Collaboration, Writing)

Description: This web-based protocol allows students to become adept at research and annotation while at the same time contributing to a group goal.

Application: This use of technology presents a new way for students to work collaboratively in finding and assessing information, sharing ideas, and increasing knowledge.

Process: Technology preparation: Go to a website such as *Perusall*, *Diigo*, *Reframe It*, *MyStickies*, or *Google Sidewiki*. Register and notice the tool bar on the browser menu for the program. (The application then superimposes a "layer" over any web page. This layer stores highlighting and comments and can be seen only by those who have been granted viewing permission.) Set up a web group for a specific class and assign a task that familiarizes students with the practice of academic annotation. Highlight for students' specific content on a web page and add a note explaining thoughts or pointing to additional resources. Tell students to highlight text or images, add their own comments, and share those annotations with fellow students.

8. JIGSAW (Collaboration, Discussion)

Description: The students will work in planned teams in which each student's part is needed to complete the product.

Application: This method helps students to be actively engaged while learning new materials, reviewing previously learned materials and perfecting listening skills.

Process: Place students into groups. Divide the lesson into the same number of parts as students within each group. Assign one student from each group to a section of text or material, usually with some guiding questions. Direct students to form new groups (expert groups) and all the experts from the same topic meet together to work on the important points of the section they are covering. After students have finished preparing their questions, have them go back to their original groups and take turns teaching their "expert information" while others are taking notes. When all students have finished teaching their section to their group, have students complete an assignment.

9. SORT IT OUT! (Collaboration, Discussion)

Description: This is a great categorization activity that forces students to make decisions.

Application: Use this technique as a review of previously learned material.

Process: Create categorization topics. Create jumbled lists of people, places, and things that would fall into the topics, making sure that the lists are specific. Set up partner teams and hand out one categorization activity sheet per team. Give a pre-determined amount of time for the activity. Tell students to stop at time and go over the answers for each category. Remind students that they can challenge category entries.

10. INFORMATION CUBES (Collaboration, Writing, Discussion)



Description: Information Cubes allow students to create a product using assigned roles within a group.

Application: Use when students are analyzing non-fiction text.

Process: Before using this activity for assessment, students should practice roles numerous times. Preview and select non-fiction resources on a specific topic for students or help students select their own resources. Introduce roles by distributing the role descriptions. Organize students into groups of four or five. Set time parameters and provide students with folders to keep information organized. Instruct students to join together and share their learning by creating an Information Cube, a six-sided cube that must include both text and visuals. Suggested roles:

Data Digger: reads a section of the text to find interesting information and explains why each bit of information is important.

The Illustrator: reads the same section of the text and creates a visual representation via picture, cartoon, sketch, graph, chart, etc.; makes sure the visual(s) will fit on the cube; creates a side of the cube with a title and group members and role assigned.

The Questioner: reads the same section of the text and creates four or five questions based directly from the text; includes all levels of questions and provides at least one open-ended question; includes information on the cube.

The Summarizer: works closely with the Data Digger in order to make conclusions and summarize the information; makes sure information is included on the cube.

Word Warden: finds words that are not universally known to all; defines them and makes sure one side of the cube includes the words, with salient definitions.

Have students present their cubes to the class.

11. CRISS-CROSS-CROSS-OUT (Collaboration, Discussion)

Description: This protocol is game-like; it is fast, furious, and fun!

Application: Use this as a review activity.

Process: Before using this protocol, rehearse with a general subject. Divide the class into two groups (yes, each group will be big). Groups must be physically apart. Tell students in each group to select a "paper writer" and a "board writer." Hand "paper writers" paper and a pen. Instruct students that the object of the activity is to record the most unique relevant terms from the topic within a given amount of time (2-3 minutes). Encourage students to be quiet when discussing because they do not want to "give away" answers to the other team. Say, "O.K. teams, you have _____ minutes. Remember, I have the final say in approving all terms. You have _____ minutes to think of everything and anything specific to _____ (topic). GO!" At the predetermined time, tell students to stop and hand their sheets to the "board writer." Tell both "board writers" to go up to the board (which is divided into two sections) and be ready to write down what is on their papers in one to one and a half minutes. Say, "Go!" At time, tell students to stop. Next, instruct the board writers to switch places, and as the teacher goes down the list, "board writers" mark off common terms. Count unique terms and announce that the team with the most distinctive terms wins!

Alison Thetford, CCECHS

12. GROUP PROJECT PRESENTATION (Collaboration, Discussion)

Description: This strategy helps students learn the value of working together to produce a product.

Application: This can be used when students need to complete a given task that requires numerous participants to get the job done.

Process: Divide class into groups of three or four. Assign topic(s) and allow students to divide the workload so that each student has an essential part. Tell students the parameters of the presentation such as minimum and maximum presentation time limits, participation in presentation, and visual aid requirements.

13. PAIRED SHARED NOTE TAKING (Collaboration, Writing, Discussion)

Description: This paired protocol allows students to compare each other's notes during a lecture, PowerPoint, or other times notes are being generated.

Application: Use this activity to revise and refine information gathered via note taking.

Process: Pair students and remind them to be careful note takers during lesson/lecture. Stop immediately after covering a crucial concept and have student pairs read each other's notes, filling in the gaps in their own note taking and being prepared to share similarities and discrepancies.

14. COLLABOARTIVE TASK CARDS (Collaboration, Discussion, Feedback)

Description: Students are given specific tasks within a group to solve mathematical problems.

Application: Task cards give students the opportunity to work on math problems in a group setting.

Process: Create enough mathematical problems for each group. Divide students into groups of four and hand out a different task card to each member of the group (Addendum II). Reveal the math problem and instruct students to fulfill the task on their card. Collect work and cards when students are finished.

Sampson County Math Drive-in: Feb 25, 2014

15. SEND A PROBLEM (Collaboration, Discussion, Writing)

Description: Based on a Kagan protocol, Send a Problem enables students to practice and discuss math procedures and solutions with each other.

Application: Use Send a Problem to strengthen recently learned material and/or to review test results.

Process: Form students into groups of four, assigning each student a letter and the group a color. Provide students within each group a colored pencil that corresponds to the groups' color. Write a math problem for each student on separate note cards and label problems A-D for students within each group. Give each student a white board and marker. Direct each student to solve his problem on the white board. Within each group, have students take turns defending their answers, allowing for challenges to the solution. Instruct groups to transfer accepted answer to the back of each note card. (Remind students that there will be four answers on the back of the card so write small!) At the end of time allotted, tell each group to pass its stack of four note cards to the group clockwise and, using white boards, check and discuss other group's work. Remind students to use A-D designation to determine who will facilitate the discussion of each question's answer. If receiving group disagrees with any answer, tell them to write their answer as an alternative. If group agrees, tell them to write "Agree." Repeat process until stacks of cards are returned to the originators. Allow originators to discuss alternative answers, either defending their original answer or accepting the alternative and record the final answer on the front of the card. Collect cards.

16. STAND-SEEK-SPEAK (Collaboration, Feedback, Discussion, Questioning)

Description: This protocol allows students to think individually before thinking and explaining together.

Application: Use this activity to practice a concept just taught or as a review. It can be used in a mathematics course.

Process: Create a set of questions. Ask first question, requiring students to answer it on their own. (Give them a time limit, depending on the difficulty of the question.) Once time is called, ask *all* students to stand. Direct them to raise their hands when they have found a partner and assist students that still need a partner. Have partners discuss their answer(s) to each other or help solve if the problem was unfinished. Instruct students to stay where they are to solve the next question and to find a new partner, repeating the process until all questions have been asked and answered.

17. FOLDABLE FLOWCHARTS (Collaboration, Discussion)

Description: A foldable flowchart combines elements to create a product that requires analysis and perspective of order and/or time.

Application: Use this approach as a way to bring interest to such mundane tasks as putting events into chronological order or inserting instructions in a step-by-step process.

Process: Have each element of a flowchart or timeline separated and in strips on paper measuring 2" x 8.5" or display jumbled elements on board and ask students to copy one element per strip. Form pairs and direct them to add facts about the element on the strips of paper with at least two additional bits of information per strip. Place the elements in the natural order that they occur and once finished, consult with another pair. If both pairs have the same order, tell students to tape the small ends together from beginning to end and then to fold the strips into an accordion. Review the order of the flowchart/timeline and discuss challenges that the pairs faced. After activity, remind students to place flowchart into interactive notebook or portfolio for reference.

18. USING TECH: BLOGS (Collaboration, Writing, Questioning, Feedback)

Description: A blog is a technology tool that allows teachers and students to communicate using text from varied sources and content. Since blogging occurs amongst participants it is, by definition, collaborative in nature.

Application: Use this tool to enhance reading and writing skills, review previously learned content, or create an e-portfolio.

Process: Go to one of the available free blogging sites (www.blogger.com). Provide the necessary information requested such as user name and password. Make a title for the blog. Accept terms and select a template. Create an introduction or thought-provoking question that has many possible answers. Place requirements on students such as the number of times a student must respond. Publish the blog.

19. ROVING REPORTER (Collaboration)

Description: One student in each group roams the classroom, asks critical questions, and reports back to his group.

Application: This strategy is best used when students need information they do not have.

Process: Form groups of three or four students. Tell each group to select a "roving reporter" whose job is to seek answers that have not been answered within their own group and to then bring the information back to the group to share. (This works best when reporters are sent out at the same time, usually near the end of the activity.)

20. COLLABORATION STATIONS (Collaboration, Discussion, Feedback)

Description: This protocol is an effective way to utilize three instructional strategies at the same time while engaging every student.

Application: This method is especially useful for reviewing informational content.

Process: Place multiple copies (1/group) of topics or topic-specific questions in large envelopes, located at various stations. (Provide way to rotate responsibility of recorder.) Instruct students (in pre-determined groups of 3-5) to rotate through the stations, writing their team responses on color-coded sheets, telling them to take it to the front of the room and place it in their group's stack. Monitor the pre-determined rotation time (usually 90 seconds-3 minutes, depending on the complexity and number of questions). Once the process is completed, distribute each set to another team for grading. (Be prepared to rule on controversial answers.) Tally all sheets and announce the winners of each station and the entire process.

21. INTERACTIVE STORY (Collaboration, Feedback, Discussion)

Description: The Interactive Story protocol allows teachers to narrate a case scenario in the form of a story, stopping every three to eight minutes, to elicit student's responses of what happened, why it happened, and what may happen next.

Application: This procedure is especially useful when the instructional content requires analysis of the situation, namely, identification of the basic cause or selection of the best solution.

Process: Create or find a story that requires systematic analysis. Group the students into teams of four or less telling them that they must pay attention to the details. Narrate the story and supply excess details to students so that they will have to separate critical information from irrelevant data. Stop the story at critical junctures and specify a task for all groups (such as identify the causes of the problem) to accomplish. At the end of the story, ask each group to summarize.

22. TABLEAUX WITH A TWIST (Collaboration, Discussion, Writing)



Description: A tableaux is an experiential exercise where students are asked to “physically construct a significant scene from literature or history through body placement, facial expressions, and the use of a few props.”

Application: Use Tableaux as a way to create personal responses to literature or history by allowing students to connect with the characters, as well as to understand the conflicts and plot in a meaningful way.

Process: Assign a particular piece of literature or historical event and work through the piece. At the end of the study, introduce the concept of Tableaux and hand out a directions sheet (Addendum Z). Group students and give each a scene, text excerpt, or historical event to represent and remind them that they are creating a frozen image that captures the essence of what is going on in the text. Choose to give all groups the same text or give each group different but related texts, such as concurrent scenes within a play. Emphasize to students that they must work together to decide how to represent something important in the text, carefully deciding their physical poses and facial expressions. Give groups enough time to plan and rehearse. As groups present their tableaux, invite students from the audience to tap a character in the scene, hearing what he has to say. (The tapped characters in the scene explain what they are doing and why they are doing it.) During the tableaux, encourage students to take notes and write a reflection paper on the total experience.

www.artmuseumteaching.com

23. THE TOWN MEETING (Collaboration, Discussion, Feedback)

Description: This role-play activity combines real world situations, current content, and advocacy.

Application: The Town Meeting is a summative role-play exercise.

Process: Have a thought-provoking topic in mind. Create a scenario. Describe the scenario to students and provide additional information, if needed. Assign the students roles pertaining to the scenario (town council member, local business owners, concerned citizens, homeowners, etc.) Hand out pertinent information to students so that they may give an informed presentation from their assigned roles. Give students time to prepare their positions. Remind students that only one will speak for the group, but all must contribute to the talking points. Tell a town council member he will run the meeting (call meeting to order, recognize people to speak, mediate conversation). Give signal to council member to begin presentations. Tell students that during the “open floor” they may ask and answer questions. To conclude meeting, direct all town council members to step out of class to deliberate their decision. Allow members to announce decision and have students write a reflection paper.

Amanda Stanfill, CCECHS

24. USING TECH: SOLVR (Collaboration, Discussion, Feedback)

Description: This website allows students to solve problems posed by teacher or student.

Application: This is a problem-solution activity.

Process: Go to www.a.freshbrain.com/solvr/. Follow directions given by the program developer. Post a problem. Send an e-mail with a specific URL to each student. Direct each student to respond to either the initial problem or comment on a possible solution that had been offered by another student. Require each student to respond at least one time.

25. COLLABORATIVE ROLE PLAY (Collaboration, Discussion, Feedback)

Description: This role-play activity combines real world situations, current content and negotiation.

Application: Collaborative Role Play is best used when students within each group have separate, competing roles and yet, must come to a group conclusion.

Process: Have a thought-provoking topic in mind. Provide/create a scenario that requires numerous roles. Describe the scenario to students and provide additional information, if needed. Assign the students roles pertaining to the scenario and hand out relevant information to students so that they have enough knowledge to advocate for their position. Give students time to advocate and negotiate within their group. As time is called, ask groups to announce their results (finished or not) and have students write a reflection paper or exit ticket on the challenges of the role play exercise.

Ken Huffman, CCECHS

26. OPERATION PRESENTATION (Collaboration, Discussion, Reading)

Description: This method makes all students within a group responsible for presentations.

Application: This formal protocol is used when students are presenting information to the class.

Process: Create a presentation rubric before using this protocol. Divide students into groups of three. Give students a topic to research and tell them that they will present the information to the entire class. Assign roles or allow students to choose one of the following:

Designer: has the responsibility of making sure that the verbal and technical parts of the presentation mesh together.

Speaker: is in charge of assigning speaking roles and assisting with speech techniques (volume level, clarity, and enthusiasm).

Technician: is in charge of setting up, maintaining, and putting away the equipment for the presentation.

27. SAY WHAT YOU MEAN! (Collaboration, Reading, Writing, Discussion, Questioning)

Description: This fun group activity uses maxims to integrate the skills of listening, thinking, writing, and reading.

Application: Use this activity to improve knowledge and metacognitive skills.

Process: Before using this protocol, define *maxim* and rehearse with a general subject. Assign a reading. Pair students and hand out, "Maxims, Sayings, and Phrases" (Addendum F). Ask students to find at least three maxims that apply to the reading, create a graphic organizer, and fill out the following for each:

Maxim #1:	Maxim #2	Maxim #3
Interpretation:	Interpretation:	Interpretation:
Explain how the maxim and reading are connected:	Explain how the maxim and reading are connected:	Explain how the maxim and reading are connected:

After completion, direct student pairs to present their very best effort.

Adapted from **Beyond Rhetoric and Rainbows: A Journey to the Place Where Learning Lives** ©1996

28. CONCEPT STATION REVIEW (Collaboration, Discussion, Feedback)

Description: In this variation of Collaboration Stations, students work on creative activities based on a topic of study.

Application: Use Concept Station Review as a way to strengthen creative skills in students.

Process: Have a topic and related concepts/vocabulary in mind for review. Create the tasks for each station, using different concepts/vocabulary at each. (Suggested tasks include: acrostics, poems, raps, illustrations, characterizations, comic strips, newspaper articles, and journal entries.) Form groups and require each person within the group to have a leadership role at one of the stations. Have specific instructions for each skill at the different stations and remind students the instructions stay at the station when they move on. In a predetermined amount of time, tell groups to rotate to another station and work on the task. After all groups have moved through all stations, post work and allow students to examine the products of others. Direct them to write a short reflection piece on the overall activity.

Josh Long, CIECHS

29. BASEBALL (Collaboration, Questioning)

Description: This activity/game resembles baseball except the "ball" is replaced by "questions" and there is no bat.

Application: Use this protocol as a review activity for tests.

Process: Prepare questions ahead of the game. Create the "baseball diamond" and "bases:" first base should be one wall; second another; third another; and home plate should be the whiteboard. Divide the class into two groups and remind students that they will be physically moving from one base to the other. Assign team captains and emphasize that there is a no-talking rule when students are "at bat." Direct a question to player number one on Team A. Remind all that this student cannot receive assistance from other team members. (If the student answers correctly, tell him to go to first base. If the student fails to answer, direct the question to the opposing team captain. If the captain answers correctly, the student at bat is "out." If the captain does not answer correctly, pose another question to the next student; correct answer advances all players. Repeat until there are three strikes at which time switch "at bat" teams. Remember, correct answers by four students equal one run!)

30. USING TECH: TWIDDLA (Collaboration, Discussion, Feedback)

Description: Twiddla is a website of collaboration. Its beauty is in its simplicity and accessibility: no plug-ins or downloads, no need to work around complex firewalls, no advanced scheduling. Its only requirement is a computer with an Internet connection and a web browser. The capabilities are endless.

Application: Use this website as a real-time collaboration tool for students. Twiddla can be used in all subjects including mathematics.

Process: Go to www.twiddla.com and explore the website, clicking on the "Sandbox" to experiment with the capabilities offered. With a topic, website, photo, document or other media for collaboration in mind, go to Twiddla, start a new meeting (with one click), invite students through the built in email, and navigate to the webpage in that Twiddla session. Direct the students to join the collaboration event by clicking the link in their email. Depending on the parameters of the assignment, allow students to upload pictures, write, draw, and navigate within it. Remind students to save their work by taking a snapshot as it can be reloaded into Twiddla for further tweaking.

www.twiddla.com

31. BOARD GAME CHALLENGE (Collaboration, Feedback, Discussion)

Description: Student groups create challenging and relevant board games that will be played by other groups within the class.

Application: Use this product-based activity as an alternative to “sit and get” review in most subjects, especially social studies, language, and literature.

Process: Have a topic of review in mind when assigning this activity. For homework, assign students the task of creating 25 questions and answers directly connected to the topic. Review questions and answers for accuracy. During class, form groups and instruct students to design the game and game board. Allow students within groups to assign roles and give them guidelines to make the process easier. 1) *Brainstorm* ideas for the game by keeping in mind what the goals and rules of the game are i.e., how does a player win the game; what is the setting of the game and how many players can play the game at one time; 2) *Sketch* out the ideas by considering what the game board should look like and the need for ancillary pieces, like a spinner or dice; 3) *Gather* materials to make the game board and pieces that support it i.e., pre-made question and answer cards, file folder, colored paper, colored pencils, and markers; 4) *Assemble* game and give it a name; 5) *Test* game within group, revising as needed; and 6) *Share and play* game with other groups. Use a game board rubric (Addendum BB) to measure students’ efforts.

www.Smithsonian.org

32. ILLUSTRATED CHARACTER MAP (Collaboration, Feedback, Writing)

Description: An illustrated character map is a graphic organizer that allows students to visually represent a literary character and to make connections between other characters and elements of a story or play.

Application: Use this type of map as a way for students to not only explore characters in a literary work, but also to create visual representations of the characters.

Process: Create groups and assign a character (or scene and act, chapter, etc.) to each group. Provide students with the parameters of the assignment: 1) to create colorful illustrations that represent the characters, their roles in the story, and ways they influence other characters; 2) to draw lines and arrows to connect the characters and include brief phrases that will help to explain the relationships; 3) to create symbolic chains to show relationships between/among characters; and 4) to include a legend that explains the colors and symbols. After the maps are finished, direct students to individually write an explanation of the map to include the significance of the placement of the characters, colors, and symbols. Ask students to select presenters for each map and to share their maps with the class, highlighting the information from their written work.

Shannon Jarman, CIECHS

33. FOREIGN LANGUAGE SONG PUZZLE (Collaboration)

Description: Originally used in ESL class, Song Puzzle is a listening skill builder.

Application: Use in foreign language classes.

Process: Before the class meets, locate an audio file of a simple but unfamiliar song in the target language. Locate the lyrics for the song, enlarge the words, cut into appropriate length strips, and jumble. Place a set of strips into an envelope, making one envelope per group. On class day, divide students into pairs and have them listen to the audio version of the lyrics. Hand out one envelope per pair and give them a few minutes to put the strips in order of the song. Repeat the process as necessary and be prepared to reveal the song’s lyrics in total. Ask partnerships to translate into English as much as possible and acknowledge the partnership that is closest to the actual meaning.

34. TEAM-PAIR-SOLO (Collaboration, Discussion, Questioning)

Description: This is a collaborative reversal of *Think-Pair-Share*.

Application: Use for new and difficult material, especially subjects that have large amounts of unfamiliar vocabulary/processes like foreign language, mathematics, or science.

Process: Introduce new material with direct instruction. Create several problems based on the new material and show students how to solve at least one. Group students into teams of four and allow them to solve at least two problems, encouraging them to think out loud. Share answers. Mix students again and place in pairs, repeating process. Separate partners, give each student problems to solve, starting in class and finishing for homework. At the next class meeting, review student work and discuss challenges of solving difficult problems alone.

35. MATHEMATICAL WORK GROUPS (Collaboration, Writing, Discussion)

Description: This collaborative activity centers on problem-solving in a deliberate and intentional way.

Application: Use in mathematics class for problem solving, perhaps at the beginning of a new concept.

Process: Before class meets, research a variety of sources that students can use. Based on student strengths and weaknesses, assign a role for each student. Form groups and give each student group problems to solve. Differentiate each group based on abilities:

Word Warden: find words to help in solving the problem and develop vocabulary for the problem; determine what functions may need to be performed to solve the problem.

Fact Finder: unearth the facts of the problem. Determine which mathematical formulas may be needed to be used to solve the problem.

Illustrator: seek charts, diagrams, organizers, or pictures that will help the group visualize the problem and “see” the potential answer.

The Calculator: label calculations to monitor; advise on the best ones to use.

The Explainer: explain reasons why or why not the group’s ideas about the problem and its solution are working. Find the trouble spots. Conclude if the answer is right or wrong.

The Questioner: determine questions about the problem and what steps may be needed to solve it.

36. TRIPLE CHECK (Collaboration, Discussion, Questioning)

Description: This protocol is perfect in an advanced foreign language class where input and output of information are received and transmitted in the foreign language.

Application: Triple Check uses many methods to solidify learning in a foreign language.

Process: Have a topic in mind and select a listening passage (up to four minutes in length). Create a graphic organizer where students can write needed information as they listen. Tell students that they will hear the passage twice and will individually write down anything that pertains to the parameters of the graphic organizer. Remind students that all verbal and written work must be in the foreign language. Pair students, assigning them a “1” and a “2” designation and allow students to compare their graphic organizer (Check 1). In an appropriate amount of time, tell “1’s” to form a group and “2’s” to form a group and to compare their graphic organizers with each other, reviewing and talking (Check 2). After that check, direct students to return to their original partnerships. Play the listening passage one more time. In partnerships, have students, using a white board, answer questions based on the graphic organizer, making sure students have the “correct” answers listed on the organizer (Check 3).

Marta Godo De Lucas, CIECHS

37. COLLABORATIVE WRITING CIRCLE (Collaboration, Writing, Feedback)

Description: Most writing activities are completed by individual students. In the Collaborative Writing Circle, groups explore narrative genres through the written word.

Application: Use this activity in advanced foreign language or language arts classes.

Process: Start the creative writing activity by brainstorming a list of various narrative genres (news article, romance, conversation, fairytale, sci-fi, etc.). Put students into groups of five or six and ask each within the group to choose a genre he would like to use for his writing, keeping the features of the genre in mind. Instruct students to write the first paragraph of a narrative in their genre. At the designated time, tell them to pass the papers clockwise, read the paragraph and write the next paragraph, in their own genre. Continue the process until the story reaches the original writer who finishes the story by writing the last paragraph. Select one or two groups to read their stories, pausing to allow students from other groups to identify the genre used for each paragraph written. Clarify any misconceptions, if necessary.

38. THINKING TRIOS BELLRINGER (Collaboration, Discussion, Feedback)

Description: An often-used bellringer is to ask students to find mistakes embedded in material presented on the whiteboard. Rather than individual students working silently, use preassigned student groups to collectively find the mistakes and discuss possible solutions with each other and then as a whole group.

Application: Use this warm-up in any subject.

Process: Preassign teams of three and explain the bellringer. 1) Gather in assigned trio and be ready to find mistakes. 2) Work quietly so that other trios do not hear answers and raise hands when they think they found all of the mistakes. 3) After the first team finishes, other teams will have a few additional minutes, but then, at the count of three, all other trios must indicate (with their counting fingers or a piece of scrap paper, the number of mistakes found. 4) The trio that finds the most mistakes describe its answers until another team challenges or until they are finished. (The teacher will affirm the answers or clarify any misconceptions, if necessary. Bellringer should last at least ten minutes, but no more than fifteen.)

39. PRO AND CON GRID ASSIGNMENT (Collaboration, Discussion, Reading, Writing)

Description: This collaboration strategy allows students to go beyond superficial talking points by thoroughly reviewing an issue, creating a list of pros and cons and making decisions based on the analysis of the information.

Application: This method can be used in any subject when evaluating, for example, the pros and cons of a process or procedure, a technique, a conclusion, decisions or actions of a fictional character, a dilemma, a judgment, or a political decision. It can be used as the basis for a debate format or side notes when presenting direct instruction.

Process: Find an issue that has competing points of view. On class day, divide students into groups of four and within the groups of four, split into teams of two, labeling one team "Pro" and the other "Con." Based on the topic, specify the minimum number of pros and cons each group must develop. Allow time for research but be ready to continue when students are finished. Allow time for teams to regroup and discuss findings. Elicit responses and record answers using a T-chart labeled "Pro" and "Con" on the whiteboard OR create a Google Doc and ask students to complete in real time. When finished, return to whole group, combining similar answers and denoting the frequency of repetitive thoughts. Use this as a springboard for students to draw conclusions. To extend the activity, assign individuals a writing assignment based on the experience. Questions to include *What was your position on the issue before the research, did that change? What were your group's most compelling arguments on both sides? What did your group eventually conclude about the issue?*

40. LAURA CANDLER'S RECHARGE AND WRITE! (Collaboration, Discussion, Feedback)

Description: This activity promotes the ideas of meaningful collaboration, active listening, and personal accountability while students solve mathematical problems. It combines "team discussions with independent written responses" in a fun and systematic manner.

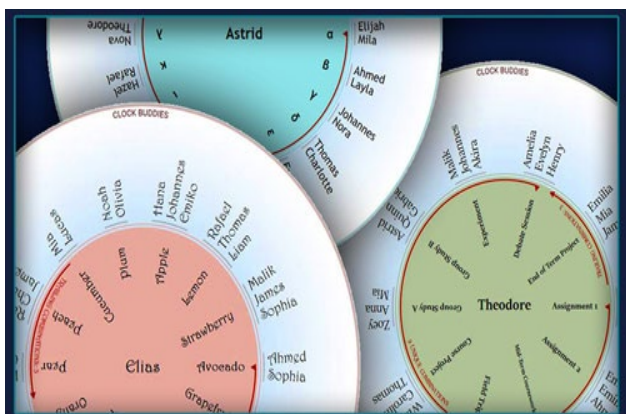
Application: This protocol may be used in any subject that contains mathematical problems to solve, but it is especially useful in solving math word problems. (Can be adapted for other subjects.)

Process: With a particular concept in mind, create/provide a minimum of four math word problems on a document with ample solving space, printing one for each student. Before class meets, determine team members and gather as many pencil cups as groups. Try to place like-ability students together in groups and differentiate word problems as necessary. On class day, group students, hand out word problem documents, and place a pencil cup in the center of each group. Give groups a moment to select a leader who is willing to lead the discussion. Display and discuss the following guidelines:

1. Keep paper face down until signaled to turn it over.
2. Select a leader for the team who will guide discussion time.
3. Before starting the activity, put all pencils in the cup. Remember: NO WRITING!
4. At signal, turn papers over. Team leader reads word problem one and starts discussion.
5. All members verbally contribute to *how* the problem could be solved.
6. Do NOT solve the problem during discussion time, but about the approach to the solution.
7. At signal, stop talking, take pencils out of the cup and SILENTLY solve the problem, showing ALL work in space provided. Remember: NO TALKING!
8. Working ahead is not allowed.
9. At signal, put pencils back into cup. Go to the next problem and repeat procedure.
10. Golden rule: "**Pencils In = Talk It Over. Pencils Out = Write Without Talking.**"

Monitor groups during both talking and writing phases. Decide ahead of time if calculators can be used, but emphasize all work must be shown. Collect and grade work as usual, adding possible points for participation and/or effort.

41. USING TECH: CLOCK BUDDY GENERATOR (Collaboration, Discussion)



Description: Developed by Skills Converged®, this free tool creates "unique combinations of groups and repeatedly mix people up quickly and efficiently." It allows teachers to divide students into groups of 2, 3, 4, or 5, up to 60 total students. The combinations can be saved in a PDF and students get their own generated "wheel" so that teachers can immediately change groups by calling out a different "symbol."

Application: Use anytime collaborative efforts are required.

Process: Adapted from the website: Before class, go to the website <https://www.skillsconverged.com/TraintheTrainer/ClockBuddies.aspx#Instructions> and look through instructions and/or watch the video to fully understand the capabilities. Enter student names into the online tool and get a series of unique printable discs, one for each student with their name shown at the center. Print results and, on class day, distribute the discs to students. Call a *symbol*, such as a number or letter from the alphabet and instruct students to look at their discs and see who they need to group with as shown next to the symbol. Call another symbol and regroup the entire class in seconds by getting *everyone* to work with someone that they have not worked with before in *any* of the unique combinations.

42. GROUP DYNAMICS (Collaboration)

Description: Deliberate and intentional structured groupings created ahead of time will take the drudgery out of forming groups on the fly.

Application: Use in all subjects and class formats, including online classes.

Process: For the first week or two of class, observe students and look for things like traits, habits, and personalities. Make mental notes of who would work well together in partnerships, trios, and groups of four. Assign partnerships designated by numbers, trios by letter, and groups of four by city name. Create a sticker for each student that has their name and the unique code (Example: Jasmine Smith: 6-C-Omaha). Record the groupings in case a student loses the sticker. Tell students to put the sticker in the front of their notebook for easy reference. Show students the process by allowing them to meet their partners, trios, and groups of four. Begin by saying, "Find your matching number." Partnerships form (assign only two of each number). Once students have met their partners, say, "Find your matching letters and trios form (assign only three students per letter), and say, "Find your matching city and groups of four forms (assign only four students per city). Be ready for noise the first time as students search for their groups. On class day when groups are needed, announce which code (number, letter, city) students use to find their group. Refer to the sticker if a student forgets. Proceed with the activity once groups are formed. Modify as necessary.

43. ICEBREAKER: BLOBS AND LINES (Collaboration, Discussion)

Description: These are a series of activities that get students talking and moving. It promotes a sense of community within the class because it helps students see commonalities amongst each other.

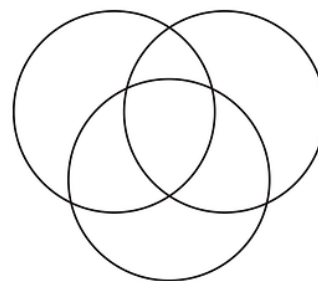
Application: Use as an introductory icebreaker, energizer, or team-building activity.

Process: Before class meets, prepare a list of "blobs and lines" prompts. On day of activity, ask students to move desks to the walls to create an open space for blobs and lines to form. Say, "Blob statements will tell you to gather with other students in groups *aka* blobs. Line statements will tell you to line up in the order described. Provide enough time for students to get in the groupings and clarify instructions if there is confusion. Avoid sensitive topics because the goal of this icebreaker is to have fun and not create moments where students feel uncomfortable. Create blobs and lines and/or use the examples below:

BLOB PROMPTS	LINE PROMPTS
Gather with people who have the same favorite season as you.	Line up according to how many languages you speak.
Gather with people who like the same musical genre as you.	Line up according to how many pets you have.
Gather in 3 blobs: Those who have lots of chores, those who have a few chores, and those who have no chores.	Line up in alpha order by your first name, then, say your first name in line.
Gather with people who get to school the same way (bus, walk, car, bike . . .).	Line up in alpha order by your last name, then, say your last name in line.
Gather in 2 blobs: Those who like chocolate candy and those who don't, then, say which candy you like.	Line up according to your birthday: month and day: SILENTLY using hand gestures only.
Gather in 5 blobs: Those who have dogs, those who have cats, those who have both, those who have other pets, or those who have no pets at all.	Line up in order of how many siblings you have. Line up according to how many times you've moved in your life.

44. VENN BLEND (Collaboration, Writing, Discussion, Feedback)

Description: Inspired by the works of Rene Masden and others, Venn Blend is a high school version of *Getting to Venn You*, a popular icebreaker. Not only can it serve as a way for students to get to know their classmates, but, in a different setting, it is also used as a subject matter brainstorming activity. Ultimately, it gets students thinking, talking, and collaborating by inquiry.



Application: Venn Blend can be used in all subjects.

Process: Prior to class, decide group size. On class day, group students and hand out Venn diagrams (Addendum SSS) that correspond to the group size, i.e., a group of three students has a three-part Venn. Optional: tell groups to create an appropriate Venn. Display guidelines on board:

1. Each circle in the Venn diagram represents one member of the group.
2. Decide which group member will be the recorder.
3. Label each circle with a group member's name.
4. **Talk** and fill-out the Venn sections by finding what things are unique to each group member (at least three things); finding what any two group members have in common (at least two things); and finding what all group members have in common (three things).

If students have a hard time getting started, suggest that they ask each other about activities, animals, food, families, or places they have visited. Allow time for sharing in a whole group format, always returning to commonalities amongst all students within the class. Modify protocol as necessary.

45. THINK-PAIR-SQUARE-SHARE (Collaboration, Discussion)

Description: This is a modified "Think-Pair-Share" activity that expands the discussion to four students instead of two.

Application: A basic collaborative method, employ Think-Pair-Square-Share in any subject with a problem to be solved or a question to be answered.

Process: Have questions at the ready before using method. Group students in pairs and present a question/problem. Direct them to think about the question individually for a predetermined amount of time. When time is called, remind them to share their thoughts, ideas, and answers with their partners. Allow time for consensus. With partner answer in hand, tell students to find another pair to discuss findings and create final consensus to share with the whole class.

46. TEXT MESSAGE MATH (Collaboration, Discussion, Feedback)

Description: Verbalizing how to solve mathematical problems is challenging for some students. Text Message Math uses the concept of a fun back-and-forth text discussion to explain the steps required in problem-solving. It can be modified for other subjects such as foreign language.

Application: This strategy encourages student-to-student communication.

Process: Form partners. For demonstration: supply a Text Message Math (Addendum XXX) half-sheet to one of the paired students with a math problem in top text bubble, simulating a friend texting for help to solve. Using words, tell student to write (in shaded bubble) the first step needed to solve the problem and pass it to partner who will follow the partner's written step to show work in the next bubble down. Repeat back and forth until problem is solved. Encourage students to write a positive message in any unused bubbles. For actual activity, divide Addendum XXX into two, one half for each student with identical or different problem to solve. Display completed sheets and conduct an informal gallery walk.

47. DIFFERENT PROBLEM-SAME ANSWER (Collaboration, Discussion, Feedback, Questioning)

DIFFERENT PROBLEM-SAME ANSWER		
STUDENT A	ANSWER	STUDENT B
1. $5+5=$		1. $9+1=$
2. $16+1+2=$		2. $10+6+3=$
3. $12-9=$		3. $6-3=$

Description: Because math class does not have to be mundane, this partner check activity provides time for individual work on *different problems*, but also moments of collaboration to check for *same answer*.

used for problem-solving in most math subjects.

Application: This handy paper protocol is best

Process: With topic in mind, create up to five sets that contain two different problems, but the same answer (i.e. $5+5=10$ and $1+9=10$). Transfer those problems onto Addendum YYY. Introduce the concept of "different problem, same answer." On class day, form partnerships and allow students to decide which column they will tackle. Provide each student with Addendum YYY different math problems on each row, making sure each row's answer is the same. Allow time for students to work and when time is called, tell students to go over answers. Guide students to pass paper to partner to work disputed problem(s). When discrepancies between pairs are resolved, go over the assignment. Optional: Assign problem columns for homework and complete at next class meeting.

48. SCIENCE EXPERIMENT STATIONS (Collaboration, Discussion, Writing)

Description: Setting-up science labs at different stations promote the elements of novelty and curiosity while at the same time fostering communication and cooperation skills among students of all ages and abilities.

Application: Use Science Experiment Stations as an end-of-unit activity.

Process: With the concept, topic, and/or unit in mind, create four to five lab experiments that generally take the same amount of time to complete. Before activities, ensure details are addressed such as where instructions and/or recording sheets are located for each station. Be specific in what students must do to reset the lab for the next group and how students should handle each lab sheet. On experiment day, arrange numbered stations around classroom. Divide students into manageable groups (four to five), provide overarching instructions, and be the countdown timer, announcing "Five more minutes until reset" or "One more minute until next station." Reassure students that there will be time within groups to discuss results after experiment stations conclude.

49. THREE PENS GROUP QUIZ (Collaboration, Feedback, Discussion, Writing)

Description: Presented by Dr. Mary Ellen Weimer of Faculty Focus, Three Pens Group Quiz transforms a routine quiz format into a novel approach of collaboration and feedback for students by using color pens to denote progress while learning. It also forces students to revisit incorrect items on a quiz in order to seek understanding.

Application: Can be used when seeking to pique student interest in a topic.

Process: Based on presented topic, announce quiz for the next class meeting and urge students to prepare. On class day, hand-out black, green, and blue pens to each student. Part one: Administer quiz making sure students write answers in *black* ink. Monitor. Part two: Once finished, quickly form groups of four. Direct students within each group to discuss questions they could not answer or were not sure if correct and after discussion, each student makes edits to their individual quiz in *green*. Part three: Allow students within groups to take out notes, textbook, and other resources and amend answers using *blue* pen. At the conclusion of the activity, allow time for students to measure the level of their knowledge (*black*) against the knowledge of others in their group (*green*) and the content contained in course materials (*blue*). Direct students to hand-in quiz. Comment according to the levels of different colors and consider participation points versus grading based on original answers.

50. USING TECH: COLLABORATIVE BREAKOUTS (Collaboration, Discussion, Questioning)

Description: Online breakout group sessions can be challenging. Sometimes students just get started and the session ends or students are finished early and twiddle their thumbs waiting. By adjusting practices, students can concentrate on content and not the seemingly faulty process. This protocol is based on Dr. Dennis Lowe's work at Pepperdine University.

Application: Use these documents to enhance online breakout discussion groups.

Process: Step 1: Prior to class and based on the topic, sign-in on Google Account and create as many documents as planned breakout rooms, label each with date and specify "Breakout Group 1," "Breakout Group 2," "Breakout Group 3", etc. Make sure the "Share" button is clicked and "Notify People" is unclicked. Open the system's Learning Management System (LMS) and "copy the URL associated with this first document into that folder with the title Breakout Group 1. Follow the same steps listed above to populate this folder with the number of breakout groups used. For each breakout document, include instructions with questions that can be the same for all groups or differentiated. Build-in at least one multiple part "list" question so that everyone may be able to contribute at least one or two answers, i.e., *list the first four amendments to the US Constitution.*

Step 2: On class day, require students to sign-in to both the LMS and the virtual collaboration software (e.g., Zoom, Google Hangouts). Before sending students to breakouts, verbally explain instructions emphasizing they are also included on the breakout document. Make sure students know which breakout group they belong to and that each group needs a note-taker and a facilitator. Emphasize that all students are responsible for contributing to the debrief after the breakouts end.

Step 3: Send students to their breakout rooms and tell them to open the collaborative document in the LMS folder that corresponds to their group number. Remind them to watch time as they discuss and take brief notes that capture their discussion. Monitor activity in real time by having a tab open to each breakout group's collaborative document. Before bringing all students back, give them a two-minute warning so that they can wrap up their final thoughts. At session debrief, share screen and "review each group's notes while highlighting or emphasizing their strongest points."

51. USING TECH: GOOGLE SHARE (Collaboration, Discussion, Feedback, Questioning, Reading Writing)

Description: Google Share is a familiar tool that allows students to share documents, videos, and images with each other in real time. In the collaborative sense, teachers can create unique documents that require all students to participate. To add depth to the experience, project the "share" to the entire class as students work.

Question: <i>Example-sample</i>	
STUDENT NAME	STUDENT ANSWER
Alex C.	
Jamaal H.	
Suzie S.	

Application: Google share can be used in a variety of ways in most subjects.

Process: Open the Google Slide, Sheet, or Document wanting to share. Click "share." Enter the email addresses of students who need access. Make option selection and double-check the file is not set to "anyone with the link can view." **Viewer** can only look, **Commenter** can leave notes, but not change the original file. **Editor** can make changes. Click "send" and tell students to go to their emails and click the link. Consider the other option of uploading the file, set permissions to "only people with the link," copy the link and send it via LMS, email, group chat/message, etc. Ensure that the file can be opened before students start. Determine the overall purpose and plan of the share. For assignment participation, prepare a document that has the question at the top, each student's name and a space for an answer on each row. Pose the question and wait for answer from all students. For text passages, ask questions and allow students to edit, annotate, and/or question.

52. PARTNER QUOTE MIX AND MATCH (Collaboration, Discussion)

Description: Creativity abounds when students are asked to mix and mingle with other students to match the beginning with the ending of a quote. This activity can be modified for online use.

Application: Perfect for all ability levels, use as a team building activity at the start of a new unit. Partner Quote Mix and Match can also be used as a fun icebreaker, changing the quotes to match the topic and abilities of the students.

Process: Before class, find appropriate quotes, one for every two students. Divide the quotes into two parts, signify beginning and ending quotes with ellipsis and put each part on a separate index card. (i.e. "Four score and seven years ago . . ." ". . . our fathers brought forth on this continent a new nation." -Lincoln) If there is an odd number of students, have one quote with two ends so that all students can participate. On class day, shuffle the index cards and hand one card to each student. Tell them to mix and mingle until they "find" their match, cautioning that there may be two ends that "fit" with the beginning and encourage discussion to justify the match. At the end of the activity, read the entire quote and determine how the class did as a whole. Online, present the first half of the quote and then create a poll with various possible endings where students select what they believe to be the second half of the quote. Share the answers and results with the entire class and discuss.

53. READINESS ASSURANCE PROCESS (RAP) (Collaboration, Discussion, Feedback, Reading)

Description: Readiness Assurance Process (RAP) is a core component of Team-Based Learning. As its name implies, it puts accountability mechanisms in place by assessing individual understanding and promoting team consensus through structured assessment and feedback.

Application: Use in advanced classes where critical thinking and collaboration are essential.

Process: Assign materials before class (readings, videos, etc.). Begin class with a 15-minute *individual* multiple-choice quiz (five to ten questions) to evaluate student preparation. Once complete, form groups and conduct the same quiz, allowing for discussion and agreement. Go over answers immediately and allow groups to dispute the answers (or questions) by submitting an appeal in writing. Review appeals to decide on validity. Review appeals and clarify misconceptions and errors. Move on to lesson.

54. DESIGN THINKING WORKSHOP (Collaboration, Discussion, Writing)

Description: To equip students with a structured framework for solving complex problems by analyzing user needs, defining actionable challenges, generating and testing solutions, and refining outcomes based on evidence.

Application: This format is perfect for computer science, STEM, and social studies classes.

Process: Set the challenge by presenting a clear, real-world problem that students will solve. Frame it with constraints (budget, time, space, user needs) so that students understand the scope and expectations of the task. Form groups and lead students through the four core phases: Discover → Define → Ideate → Prototype/Test, providing structured tools and setting time limits for each phase. Facilitate testing and feedback by organizing tests with peer review. Challenge students to refine prototypes based on evidence and feedback. Have teams present their prototypes and explain their reasoning. To conclude, lead a reflection session on what worked, what did not, and what could be improved. Optional challenge: Ask students to articulate how the workshop improved their collaborative decision-making and ability to justify design choices.