

Appendix: Protocols and Strategies



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Admit and Exit Tickets

General Protocols and Strategies

Purpose

At the end of class, students write on 3x5 cards or slips of paper an important idea they learned, a question they have, a prediction about what will come next, a self-assessment of their own progress, or a thought about the lesson for the day. Alternatively, students turn in such a response at the start of the next day—based on either the learning from the day before or the previous night’s homework. These quick writes can be used to assess students’ knowledge, or to make decisions about next teaching steps or points that need clarifying. This reflection helps students to focus as they enter the classroom, or solidifies learning before they leave.

Materials

- 3x5 cards, sticky notes, or half sheets of paper with teacher-chosen material copied onto them
- Writing utensils

Procedure

1. For 3–5 minutes at the end of class (or at the start of the next one), have students jot responses to the reading or lesson on 3x5 cards, or on a simple assessment you have designed.
2. Keep the response options simple, e.g., “Jot down one thing you learned and one question you have.”
3. Don’t let the cards become a grading burden. Glance over them for a quick assessment and to help you with planning for next learning needs. These are simple, quick writes, not final drafts.
4. After studying the “deck,” you might pick out a few typical/unique/thought-provoking cards to spark discussion.
5. Cards could be typed up, anonymously if desired, to share with the whole group so they can help with summarizing, synthesizing, or looking for important ideas. It is a good idea to let students know ahead of time that this will be done, as they may put more effort into the write-up. When typing, edit for spelling and grammar.

Variations

- 3-2-1: Have students write three of something, two of something, then one of something. For example, students might explain three things they learned, two areas in which they are confused, and one thing about which they’d like to know more or one way the topic can be applied. The criteria for listing items are up to the needs of the teacher and the lesson, but it’s important to make the category for listing three items easier than the category for listing one.

Anchor Charts: Making Thinking Visible

General Protocols and Strategies

Purpose

Anchor Charts build a culture of literacy in the classroom by making thinking visible: recording content, strategies, processes, cues, and guidelines during the learning process. Posting Anchor Charts keeps relevant and current learning accessible to students: to remind them of prior learning, and to enable them to make connections as new learning happens. Students refer to the charts and use them as tools as they answer questions, expand ideas, or contribute to discussions and problem solving in class.

Materials

- Poster or chart paper
- Dark, easily visible markers

Procedure

1. Build Anchor Charts with students to capture strategies and key ideas.
2. Let students add ideas to Anchor Charts as they apply new learning, discover interesting ideas, or develop useful strategies for problem solving or skill application.
3. Also add to Anchor Charts as you debrief student work time, recording important facts, useful strategies, steps in a process, or quality criteria.
4. Anchor Charts should contain only the most relevant or important information.
5. Post only those charts that reflect current learning and avoid distracting clutter—hang charts on clotheslines, or set them up in distinct areas of the room; rotate the charts that are displayed to reflect the most useful content.
6. Charts should be neat and organized, with simple icons and graphics to enhance their usefulness (avoid distracting, irrelevant details and stray marks).
7. Organization should support ease of understanding, and be varied based on purpose.
8. Charts are best in simple darker earth tones that are easily visible (dark blue, dark green, purple, black, and brown—use lighter colors for accents only).

Variations

- Students can create Anchor Charts during small-group and independent work to share with the rest of the class.
- For a wide variety of other Anchor Charts, explore:
www.readinglady.com/mosaic/tools/AnchorChartPhotographsfromKellyandGinger/

Annotating Text

General Protocols and Strategies

Purpose

Annotating text goes beyond underlining, highlighting, or making symbolic notations or codes on a given text. Annotation includes adding purposeful notes, key words and phrases, definitions, and connections tied to specific sections of text. Annotating text promotes student interest in reading and gives learners a focused purpose for writing. It supports readers' ability to clarify and synthesize ideas, pose relevant questions, and capture analytical thinking about text. Annotation also gives students a clear purpose for actively engaging with text, and is driven by the goals or learning targets of the lesson.

Through the use of collaborative annotation (annotations made by multiple individuals on the same text), learners are given the opportunity to “eavesdrop on the insights of other readers” (Wolfe & Neuwirth, 2001). Both peers and instructors can provide feedback in order to call attention to additional key ideas and details. Annotating text causes readers to process information at a deeper level, and increases their ability to recall information from the text. It helps learners comprehend difficult material and engage in what Probst (1988) describes as “dialogue with the text.”

Materials

- Writing utensil (colored if desired)
- Optional: sticky notes
- Optional: Applications such as Notability, which allow you to annotate PDFs and electronic text

Procedure

1. Define the purpose for annotation based on learning target(s) and goals. Some examples include:

- Locating evidence in support of a claim
- Identifying main idea and supporting details
- Analyzing the validity of an argument or counterargument
- Determining author's purpose
- Giving an opinion, reacting, or reflecting
- Identifying character traits/motivations
- Summarizing and synthesizing
- Defining key vocabulary
- Identifying patterns and repetitions
- Making connections/making predictions

2. Model how to annotate text:

- Select one paragraph of text from the reading, and highlight or underline key word(s) or phrase(s) related to the lesson's purpose, using the “think aloud” strategy to share with students why you marked certain selections of the passage.
 - Based on your “think aloud,” model writing an annotated note in the margin, above underlined words and phrases, or to the side of text.
3. Practice annotating with students, choosing another paragraph/section of text and reminding them of the purpose. Have them highlight, underline, or circle relevant words and phrases in the reading and add annotations. Have students share what they selected and explain their annotations. Repeat over several classes or as necessary, working on gradual release toward student independence.

Variations

- Annotations can look very different while accomplishing the same purpose—engaging deeply with text—depending on the focus of the lesson and the needs and preferences of the learners.
- For an in-depth study of annotation and options for annotations, explore <http://learning.blogs.nytimes.com/2011/03/07/briefly-noted-practicing-useful-annotation-strategies/>

References

- Porter-O'Donnell, C. (2004, January 1). Beyond the yellow highlighter: Teaching annotation skills to improve reading comprehension. *English Journal*, 82-89.
- Probst, R. (1988, January 1). Dialogue with a text. *English Journal*, 32-28.
- Wolfe, J., & Neuwirth, C. (2001, January 1). From the margins to the center: The future of annotation. *Journal of Business and Technical Communication*, 333-371.

Back-To-Back and Face-to-Face

General Protocols and Strategies

Purpose

This protocol provides a method for sharing information and gaining multiple perspectives on a topic through partner interaction. It can be used for reviewing and sharing academic material, as a personal “ice breaker,” or as a means of engaging in critical thinking about a topic of debate.

Materials

- Questions to be asked between student partners, prepared in advance

Procedure

1. Have students find a partner and stand back-to-back with him or her, being respectful of space.
2. Have students wait for the question, opinion, etc., that they will be asked to share with their partner.
3. Have students think about what they want to share and how they might best express themselves.
4. When you say, “Face-to-face,” have students turn, face their partners, and decide who will share first if the you have not indicated that a certain person should go first.
5. Have students listen carefully when their partner is speaking, and be sure to make eye contact with him or her.
6. When given the signal, students should find a new partner, stand back-to-back, and wait for the new question, opinion, etc.
7. This may be repeated for as many rounds as needed/appropriate.

Variations

- Partners may be assigned.
- Partners may also stay together for the length of the protocol.
- The protocol may be repeated several times in a row with the same partners, to give students multiple opportunities to check their understanding and receive information from their partners.

Building Background Knowledge

General Protocols and Strategies

Purpose

This protocol demonstrates how quickly people can become interested in a topic, build background knowledge, and use that background knowledge to become better and more informed readers of complex text. The protocol adapts easily to content in many disciplines, and the design ensures that all students read, think, and contribute. The protocol is particularly useful in introducing a topic because it fosters curiosity and builds in immediate feedback about learning. A BBK workshop, especially if it includes close reading of a common text, may comprise an entire class period or even multiple class periods (introducing different texts on successive days). When conducted and debriefed for educators, the protocol heightens awareness of key instructional and grouping practices.

Materials

- Chart paper
- Colored markers
- Various texts on a related topic

Procedure

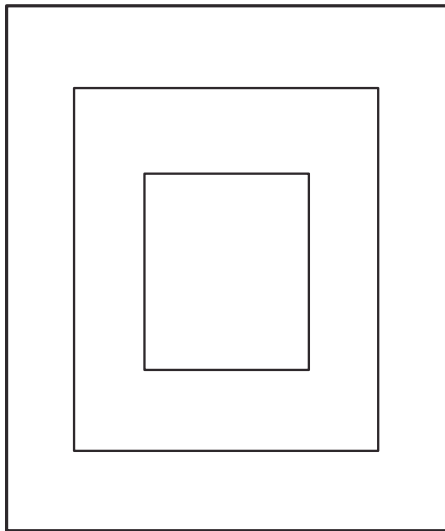
1. Choose a topic and find several texts as described in the following steps.
2. Use a grouping strategy to shift students into groups of four or five.
3. To each group, give a set of four different-colored markers, a piece of chart paper, texts, and loose-leaf paper.
4. Share a “mystery text” with the whole class: Choose a relevant short text, poem, political cartoon, photograph, song, graph, map, etc., that sparks students’ curiosity about the topic. Display or provide copies of the text (remove the title if it gives away the topic).
5. Activate and share background knowledge:
 - Ask students to write down what they know about the topic of the mystery text.
 - Ask students, in their small groups, to number off, then share what they know about the topic, being sure that each person has a chance to speak.
 - Ask students to create a web or visualization of their collective knowledge/understanding of the topic on a piece of chart paper using just one of the colored markers. Number 1 in the group is the recorder for this part.
6. Provide a “common text” —an article or essay on the topic that is interesting, offers a solid introduction to the topic, and provides multiple perspectives. All students read this article.
7. Ask students to text-code (use symbols, letters/numbers, and shorthand to annotate) the article with “N” for new information.
8. Ask students to add their new knowledge to their web using a different color of marker. Number 2 in the group is the recorder for this part.

9. Distribute “expert texts”: Hand out a different text on the topic to each member of the group. This is an ideal time to differentiate texts if needed.

Variations

- Boxing (see figure below): Draw a box to create a fairly wide frame for the poster. Draw a smaller box inside the first. The boxes will create three spaces for representing learning. In the frame, have the group write their prior knowledge, or possibly what they want to learn about the topic. Next, read and discuss to build knowledge. Inside the second box, write about new learning. Finally, in the middle, either write a summary of the learning or create a graphic illustration that synthesizes the group’s understanding of the topic
- Combine this protocol with a Gallery Walk to share webs or boxes amongst members of the class
- Assign a “Roving Reporter” role to one or more students, having them view and report on group ideas to the rest of the class.

Boxing



Carousel Brainstorm

General Protocols and Strategies

Purpose

The purpose of using the Carousel Brainstorm protocol is to allow students who have been working in collaborative groups to share their ideas with the full class, build a common vision or vocabulary, and/or demonstrate their knowledge or readiness around a variety of issues.

Materials

- Poster or chart paper
- Different-colored markers for each group
- Optional: sticky notes

Procedure

1. Before your class gathers, identify several questions or issues related to your topic, perhaps drawn from a reading that you will share later or from the questions students have been asking as you've moved through a study.
2. Write each question or issue on a separate piece of poster paper and post or put on tables/desks around the room.
3. Divide your class into smaller groups to match the number of questions you have created. Give a different color of marker to each group, and have each group start at a particular question.
4. At each poster, students should brainstorm responses or points they want to make about the question.
5. After a couple of minutes with each question, signal the teams to move to the next question, until all teams have responded to all questions.
6. Conclude the activity by having each team highlight and report key points at their initial question or by having students star the most important points and discussing those.
7. If it is appropriate for your topic, distribute a related reading and discuss, using the common vocabulary you have built through this process.
8. Following group work, have each group post their recording chart on the wall.
9. Have the entire class then number off according to the number of charts on the wall (e.g., if there are six charts, number off up to six).
10. Have students regroup by matching numbers.
11. Give each group a uniquely colored marker or pack of sticky notes and direction to begin at a specific chart.
12. At each chart, have students record, with sticky note or marker, their responses to the ideas on the chart. Invite specific kinds of responses depending on what is on the charts. Be sure to tell students how much time they will have at each chart.
13. Signal the groups to begin at the first chart.
14. After a specified amount of time, signal the groups to move to the next chart, until each group has viewed all of the charts.

15. Conclude the activity by having each group synthesize or highlight what they learned by viewing other groups' charts and by inviting the original groups to review the responses they received on their chart.

Variations

- Combine this protocol with the Gallery Walk protocol so students can share each other's brainstorming ideas.
- Use the protocol guidelines for the Praise, Question, Suggestion protocol to help students shape their comments appropriately in step 13.

References

- Lipton, L., & Wellman, B. (2000). *Pathways to understanding: Patterns and practices in the learning-focused classroom (3rd ed.)*. Guilford, VT: Pathways Pub.

Chalk Talk

General Protocols and Strategies

Purpose

A Chalk Talk is a written protocol in which students respond in writing, in a central place (such as a piece of chart paper), to an important, open-ended question—silently. It is a way to promote discussion and awareness of issues, perspectives, or academic challenges. Chalk Talks bypass the social roadblocks that often impede classroom communication, and ensure that all voices are heard. A Chalk Talk is also an excellent way to promote awareness of patterns and problems, as students reflect on the information they have shared.

Materials

- Chart paper
- Markers (to write questions in bold letters on chart paper)
- Colored writing utensils, one per student
- Optional: sticky notes
- Anchor chart for protocol norms

Procedure

1. Formulate one or more important, open-ended questions that will provoke comments and responses.
2. Write the questions or topics on separate pieces of chart paper in bold marker. Post the charts on the wall or on desks so that all students have ready access to them.
3. Give each student a different-colored pencil or marker.
4. Explain the Chalk Talk protocol and answer any student questions.
5. Set up norms for the Chalk Talk.
6. This technique works only if everyone is writing and responding throughout the designated time period and remains silent throughout.
7. Make it clear that everyone is responsible for writing a comment, reading others' comments, and responding to at least one to three comments on every chart paper.
8. No one should sit down until the time period is over.
9. Opinions must be freely expressed and honored. No personal attacks are allowed.
10. Comments should be thoughtful and further the discussion.
11. Allow 10 to 20 minutes for the Chalk Talk. It's helpful to walk around, read, and gently point students to interesting comments. All writing and responding is done in silence.
12. Search for patterns. In pairs, students should read through all the postings, search for patterns and themes (or “notice and wonder”), and record those patterns on a piece of paper. This part takes about 5 minutes and is not silent.

13. Conduct a whole-group share. Pairs should report out patterns and themes, round-robin style, until all perceptions are shared.

Variations

- Have students write on and post sticky notes instead of responding directly on the chart paper, so chart paper can be reused for multiple classes if needed.
- Adding an element of optional text coding (e.g., students placing a star next to comments they agree with or a question mark on comments they don't understand) can deepen the written discussion.
- Technological versions of Chalk Talk (such as commenting on a teacher-owned blog) may further students' interest and engagement. However, bear in mind that switching the format of Chalk Talk to a technological forum will require different guidelines, routines, and piloting to proactively plan for possible challenges.

References

- Adapted from: Original © by Hilton Smith, Foxfire Fund; adapted by Marylyn Wentworth

Concentric Circles (Inner Circle/Outer Circle)

General Protocols and Strategies

Purpose

This protocol provides students with a structure to actively engage in discussions around short text, questions, opinions, or debates on any topic with several different partners.

Materials

- Optional: desks or chairs, one for each student (this protocol can also be done by standing and facing each other).

Procedure

1. Desks or chairs should be arranged in two concentric circles facing each other.
2. The first pair of students facing will have a specified amount of time to discuss the first question, topic, or section of a reading.
3. When the signal is given, the inside circle rotates one chair (or more) to the right or left, and the new pair moves on to the next question, topic, or section of reading.
4. The inside circle moves as many times as necessary to finish the topics.
5. The last pair should have time to sum-up the conversation and be prepared to share key points with the whole group.

Variations

- Students could define terms or prepare for assessments by reviewing academic material.
- The protocol could be combined with Peer Critique or Praise, Question, Suggestion to give students variety of responses to their work.

Discussion Appointments

General Protocols and Strategies

Purpose

Discussion Appointments allow students to have conversations with various peers about a text, question, or concept. Multiple, short discussions allow students to expand and deepen their understanding. For this reason, Discussion Appointments is a particularly good protocol to use just before students begin to write.

Materials

- Pre-created appointment sheets

Procedure

1. Determine the focus of the discussions. Have clear questions or prompts to provide to students.
2. Determine the number and length of appointments students will have.
3. Create an appointments sheet, or have create a model for students to replicate (see sample following)
4. Explain to students the purpose and logistics of the discussion appointments, and distribute (or have them create) their appointments sheet.
5. Give students a brief amount of time (usually about 3 minutes) to set appointments, having them write down the name of their “appointment”. Students should have only one appointment per slot, and they may not turn down an invitation for an appointment if both people have the same open slot.
6. IF there are an uneven number of students, or if students do not have an appointment slot filled for some other reason, they should come to you to be paired up or to engage in discussion with you.
7. Then, in this lesson or future ones, ask students to meet with specific “appointments” when you wish for them to pair up with a peer for a specific discussion or task (e.g., “Meet with your Ethiopia appointment partner.”)

Variations

- **Content-Based Discussion Appointments:** This variation is from Expeditionary Learning’s seventh-grade ELA Module on the novel *A Long Walk to Water*. The appointments ask students to find a partner to meet “at” several settings that exist in the novel. This not only allows students to participate successfully in the protocol, but reinforces the content of the lesson.

Final Word

General Protocols and Strategies

Purpose

This protocol is designed to help students understand the meaning of a text, particularly to see how meaning can be constructed and supported by the ideas of others. This protocol is especially helpful when people struggle to understand their reading; the nature of the protocol allows students not only to present their ideas in a nonthreatening oral fashion, but also to benefit from the knowledge acquired by other members of their group. The roles of timekeeper and facilitator are especially important to this protocol, and may require some training and practice for students: how to keep time politely but firmly; how to keep people on task respectfully; and so on.

Materials

- Optional: recording form for purpose of reading text (e.g., main idea and details, “gist,” answering a predetermined prompt)

Procedure

1. Have each group select a timekeeper and facilitator.
2. Students then number off in the order that they will present.
3. All students may read the same text, or students may read different texts on a common topic, for a jigsaw effect. Text selection is a critical step.
4. Students read silently and text-code, or fill out a recording form. They mark passages for discussion clearly, so they can quickly locate them later.
5. Presenter shares a designated number of passages and his or her thinking about them. Be sure to indicate how long the presenter should speak so there will be enough time for each group member.
6. Each student comments on what was shared, in less than 1 minute each. Interesting similarities and differences in interpretations will arise as other students share their thinking without judgment or debate.
7. Presenter gets the final word, sharing how his or her thinking evolved after listening to others or re-emphasizing what was originally shared. The presenter may change his or her perspective, add to it, or stick with original ideas without criticism.
8. Follow steps 4-6 with each additional student taking the role of presenter.

Variations

- Encourage students to write down their thoughts before speaking if needed, so their comments are focused and efficient.
- To promote critical thinking, design prompts for the discussion that ask students to include reasons for selecting a particular passage and evidence that supports a particular point.

References

- Adapted from: Original © by Jennifer Fischer-Mueller and Gene Thompson-Grove

Fishbowl

General Protocols and Strategies

Purpose

The fishbowl is a peer-learning strategy in which some students are in an outer circle and one or more are in the center. In all fishbowl activities, both those in the inner and those in the outer circles have roles to fulfill. Students in the center model a particular practice or strategy. The outer circle acts as observers and may assess the interaction of the center group. Fishbowls can be used to assess comprehension, to assess group work, to encourage constructive peer assessment, to discuss issues in the classroom, or to model specific techniques such as literature circles or Socratic Seminars.

Materials

- Chairs or desks for each student arranged in two concentric circles
- Checklist or reflection questions for the outer circle students, depending on the instructional need

Procedure

1. Arrange chairs in the classroom in two concentric circles. The inner circle may be only a small group or even partners.
2. Explain the activity to the students and ensure that they understand the roles they will play.
3. You may either inform those that will be on the inside ahead of time, so they can be prepared or just tell them as the activity begins. This way everyone will come better prepared.
4. The group in the inner circle interacts using a discussion protocol or the “script” of a role play.
5. Give each student in the outer circle a list of aspects of group interaction they should silently observe and comment on—for example, whether the group members use names to address each other, take turns, or let everyone’s voice be heard.
6. Make sure all students have turns being in both the inside and the outside circle at some point, though they don’t all have to be in both every time you do a Fishbowl activity.

Variations

- Each person in the outside circle can have one opportunity during the fishbowl to freeze or stop the inside students. This person can then ask a question or share an insight.
- Have each student in the outer circle observe one student in the inner circle (you may have to double, triple, or quadruple up)—for example, tallying how many times the student participates or asks a question.

Gallery Walk/Hosted Gallery Walk

General Protocols and Strategies

Purpose

This protocol offers students an opportunity to share information with others in a gallery setting. The protocol involves small-group collaboration, while making individuals responsible for the learning and, when hosted, the teaching.

Materials

- Chart paper
- Markers for each student

Procedure

1. Divide students into groups—the size of group will vary with the topic and how it can be divided, size of class, age, etc.
2. Assign each group a specific segment of the topic (e.g., one group might be assigned the legislative branch of government, another the executive branch, and another the judicial branch).
3. Provide each group with additional materials they need to further enhance their study of the topic.
4. Allow time for group to read and discuss the new information. Using prior knowledge along with the new knowledge, have each group create a chart with key points and a visual representation that—in the hosted version—each person in the group will use to teach others in the class.
5. Be clear that each person has to understand the text and images on the poster in order to present the information effectively. Allow time for the groups to help one another focus on key components.
6. Post the work around the room or in the hallway.
7. Regroup students so each new group has at least one member from the previously established groups.
8. Give specific directions at which poster each group will start, what speakers' and listeners' jobs are as they rotate from poster to poster, and how much time they will have at each poster.
9. The speaker at each poster is the person(s) who participated in the creation of the poster. Specify the kinds of information the speaker should present to the group—a summary, a synthesis, or an important question.

Variations

- Use Gallery Walks to introduce and reflect on new material and build background knowledge, as in the beginning of a unit or lesson. For example, several quotes, photographs, or video clips can be set up around the room, while students rotate in groups and reflect on what they encounter.
- Use Gallery Walks to display and share end products (e.g., writing, artwork, anchor charts) of individual and group work.

References

- Jonson, K. (2006). *60 strategies for improving reading comprehension in grades K-8*. Thousand Oaks, CA: Corwin Press.

Give One, Get One, Move On (GoGoMo)

General Protocols and Strategies

Purpose

This protocol serves two purposes: allowing students to reflect on the important ideas of the current learning, and letting students share those ideas with peers. Use it before the learning to help students brainstorm key ideas on a topic/reading to activate prior knowledge and build background knowledge; use it after the learning to help students summarize and synthesize key concepts in the reading. You can structure it with movement or make it a silent, written experience. Observing the protocol carefully can also provide you with a formative assessment of what ideas “stuck” (or didn’t “stick”) with students during the learning.

Materials

- 3x5 index cards, sticky notes, or one teacher-created GoGoMo handout per student (see sample that follows)
- Writing utensils
- Copies of text, if being used

Procedure

1. Ask students to write down three to five key points of learning or important ideas about the topic of study (one per card, sticky note, or box on the handout).
2. Invite students to get up and mingle with each other.
3. After about 30 seconds, call out, “GIVE ONE to a partner.”
4. Have students form pairs and each “give” one of his or her key points of learning or important idea about the topic to the other, so that each student “gives one” and “gets one.” Time may range from 1 to 3 minutes.
5. Call out “MOVE ON.” Students mingle again.
6. Repeat the sharing for as many ideas as students have to share.
7. As students repeat their sharing, emphasize that they are to read all the previous ideas given to them before “giving” and “getting,” so the same ideas are not repeated over and over again. Only information new to the students should be shared.

Variations

- Milling to Music: While the music is playing, students dance around to move throughout the room; when the music stops, each student shares their thinking or work with the student closest to him or her.
- For sharing, vary the sizes of the groups from partners to triads to quads.
- Instead of random mingling, have students gather in various clusters, such as by height, by interest, by role, and so on. This slightly changes the focus of sharing.
- Combined written and oral version: Conduct the written version in small groups, then fill out the rest of the worksheet by having students get up and complete the rest of the boxes in an oral “mingle.”

- See the silent, written version that follows.

Give One, Get One, Move On (GoGoMo) – Written Version

Directions: Think of an important idea you have learned about this topic or one that has recently been reinforced. Write it down in Box 1. Pass the sheet to another participant who will silently read what was written in the first box. That person will add an idea in Box 2. Do not repeat ideas that are already listed. Continue passing on the paper and adding ideas until all the boxes are filled with ideas. Return the sheet to the original owner.

1	2	3
4	5	6
7	8	9

Infer the Topic

General Protocols and Strategies

Purpose

This protocol offers students a chance to work together to uncover the heart of a larger concept before they begin to study a new topic. Students also get a chance to experience the ways an inference can change as they take in new information. It allows students to draw on their own background knowledge and work in a fun, collaborative environment with new information from a variety of peers to uncover meaning.

Materials

- Images and/or artifacts related to the topic of study
- Optional: recording form for each student to write down inferences

Procedure

1. Locate artifacts with and without key words/quotes related to the concept. The goal is for students to infer what is happening in the image. Images can range from concrete to abstract.
2. Have students select an image and record their inference about the new topic of study.
3. Students mingle about the room and stop when prompted, facing a partner.
4. In one minute or less, students view each other's images, discuss and record a new inference about the upcoming topic of study.
5. Students mingle about the room again, this time with the partner they were just sharing with. When prompted, partners stop facing another set of partners.
6. All four students share their artifacts and inferences, discuss further and make a new inference about what the new topic of study could be.
7. Students gather whole group displaying their artifact in front of them for all to see. The teacher invites a few to share their artifacts and their inferences about the upcoming topic.
8. After a few have shared, the teacher reveals the topic of study as well as the guiding questions and big ideas.

Variations:

- Vary partner instructions or adapt numbers of partners or rounds.
- To monitor understanding and support students struggling to infer the artifacts' meaning, teachers can circulate and give these students a "ticket" in the form of a colored card or sticky note. At an opportune time, call a meeting of an invitational group for anyone with tickets or anyone who is struggling.

Interactive Word Wall

General Protocols and Strategies

Purpose

A Word Wall is an organized collection of words (and sometimes phrases) displayed on a wall or other surface. An Interactive Word Wall in a classroom is a powerful instructional tool: it makes words visible and easily referenced and manipulated; supports the teaching of key words and subject-specific terminology; and encourages independence in reading and writing.

Materials

- Large index cards, strips of paper, or a tag board for writing and manipulating words
- Optional: an illustration, photograph, or object on or next to particular words, to support learning with the aid of visual cues

Procedure

The “interactive” part is critical; actively engaging with the words will support learning. There are many ways to interact with word walls; some are quick and can occur on a daily basis. Other interactions can constitute an entire lesson. Suggestions include:

1. Categorize and Classify: Have students classify the terms.
2. Compare and Contrast: Create categories to compare and contrast.
3. Concept Map: Use the words to create a concept map.
4. Conceptual Model: Use the words to construct a conceptual model that represents student thinking and/or scientific phenomenon.
5. Create descriptions: Use the words to describe concepts.
6. Contextualized use: Challenge the students to use some or all of the words on a short answer quiz.
7. Label Diagrams: Use the words on the wall to label student diagrams and illustrations.

Variations

- Zoom In (Concept Map Approach): Pull cards from your Word Wall, or write one word/phrase per card. Use a limited number of cards, perhaps ten to fifteen, or fewer for younger students. Also create cards with one-way and two-way arrows. Use the floor or magnets and a magnetic board to display the cards and group the students around the words. (Modification: Give each student his or her own set of word cards.) Ask a student or a pair of students to arrange two or three cards in a way that connects them or makes a model of the terms, and to explain what they are doing as they place the words. Observers may ask questions once the connection or model is created. Repeat with another student or pair of students.

References

- Bear, D.R., Invernizzi, M., Templeton, S., & Johnston, R. (2000). *Words their way: Word Study for phonics, vocabulary, and spelling*. Upper Saddle River, NJ: Prentice-Hall

- Morris, D. (1981). *Concept of word: A developmental phenomenon in the beginning reading and writing process*. Language Arts, 58, 659-668.

Jigsaw

General Protocols and Strategies

Purpose

This protocol allows small groups to engage in an effective, time-efficient comprehension of a longer text. Having every student read every page or section may not be necessary. Students can divide up the text, become an expert in one section, hear oral summaries of the others, and still gain an understanding of the material.

Materials

- Text divided into manageable sections, corresponding to the number of students in a group
- Optional: recording form for observations/thoughts and/or text-dependent questions

Procedure

1. Divide the chosen text into manageable sections.
2. Arrange students into groups so there are the same number of people in each group as sections to read. Assign the sections to each member.
3. Students read their section independently, looking for key points, new information, or answers to questions.
4. Each member in turn shares his/her important points or summaries of the text.
5. Have students independently write/reflect on their own understanding after the discussion.

Variations

- Use Jigsaw to have students read several shorter texts, one per group.
- Jigsaw texts, if several are used, can be differentiated according to student need.
- Have students work with a single text in topic-alike groups first, to become experts on a text. Then, re-distribute the groups so that each student can serve as an expert on the text they read in their previous group.

References

- Aronson, E. (1978). *The Jigsaw classroom*. Beverly Hills, CA: Sage Publications.
- McDonald, J., Mohr, N., Dichter, A., & McDonald, E.C. (2007). *The power of protocols: An educator's guide to better practice*. New York, NY: Teachers College Press.

Mystery Quotes

General Protocols and Strategies

Purpose

This protocol offers students a chance to work together to uncover the heart of meaning of a mystery quote/passage/image before they read more about it or work more deeply with inference as a critical thinking strategy. It allows students to work in a fun, collaborative environment to use new information from a partner, and to draw on their own background knowledge to uncover meaning. This protocol also asks students to put things in their own words, to compare text to experience, and to work with a variety of partners.

Materials

- Quotes, phrases, sentences, or words from the text copied onto strips or index cards, one per student

Procedure

1. Decide on quotes, phrases, sentences or words directly from the text to copy onto strips or index cards.
2. Don't paraphrase the text. You may omit words to shorten a sentence, but don't change the words.
3. Have students select a quote/passage and without revealing it to a partner, tape it on his/her back. (Students may look for a partner who "fits" the quote, or selections can be randomly determined.)
4. Students mingle about the room and stop when prompted, facing a partner.
5. In one minute or less, students read each other's quotes and think about one hint to give the partner about his/her quote.
6. In one minute total, each student shares a hint about the partner's quote.
7. Students mingle about the room again and stop when prompted, facing another partner.
8. Offer time to read the quote and think about a story that exemplifies or reminds you of it.
9. Each student shares the story related to the partner's quote in a set timeframe.
10. Continue additional rounds as desired, offering a range of prompts right for your situation, such as "Create a metaphor or simile to describe the quote," "Give an example of the idea in the quote in action," etc.
11. Bring the whole group together to each share a final inference about the meaning of their quote.
12. Students then guess which quote has been taped to their back from a list of all quotes and share how their inferences about the quote compares to the actual text.
13. Discuss strategies students used for inferring and how the quotes deepened or introduced knowledge.

Variations

- Students carry index cards with them, recording their current thinking about the essence of their quotes..
- Vary partner instructions or adapt numbers of partners or rounds.

- For non-readers, use images with or without key words. The goal is infer what is happening in the image on your back. Images can range from concrete to abstract. It is also possible to divide the class into readiness groups and have one group work separately with sentences while the other uses images.

Peer Critique

General Protocols and Strategies

Purpose

This protocol can be used to offer critique and feedback in preparation for revision of work. It should be used after a draft of what will become a finished product is completed. This process will help students see what is working and then ask questions and offer suggestions, leading to revision and improvement. It is important students understand that the focus should be on offering feedback that is beneficial to the author/creator. Explicit modeling is necessary for this protocol to be used successfully.

Materials

- Anchor chart for feedback norms
- Optional: recording chart for peer feedback, one per student

Procedure

1. Begin with the norms:
 - Be Kind: Always treat others with dignity and respect. This means we never use words that are hurtful, including sarcasm.
 - Be Specific: Focus on particular strengths and weaknesses, rather than making general comments like “It’s good” or “I like it.” Provide insight into why it is good or what, specifically, you like about it.
 - Be Helpful: The goal is to positively contribute to the individual or the group, not to simply be heard. Echoing the thoughts of others or cleverly pointing out details that are irrelevant wastes time.
2. Participate: Peer critique is a process to support each other, and your feedback is valued!
3. Have the author/designer explain his or her work and explain exactly what type of critique would be helpful (in other words, what questions does he or she have or what is s/he confused about that s/he would appreciate help with).
4. The critique audience should begin comments by focusing on something positive about the work (“warm” feedback), then move on to constructive sharing of issues or suggestions (“cool” feedback).
5. When critiquing a peer’s work, use “I” statements. For example, “I’m confused by this part,” rather than “This part makes no sense.” Remember the three important phrases: “I notice....” “I wonder....” “If this were my work, I would....”
6. Use questions whenever possible. For example, “Did you consider adding...?”

Variations

- Model critiquing multiple times before having students try it on their own.
- Combine with a checking-for-understanding strategy to make sure critiques follow the guidelines of being kind, specific, and helpful.
- See also Praise, Question, Suggestion

Praise, Question, Suggestion

General Protocols and Strategies

Purpose

This protocol can be used to offer critique and feedback in preparation for revision of work. It should be used after a draft of what will become a finished product is completed. This process will help students see what is working and then ask questions and offer suggestions, leading to revision and improvement. It is important students understand that the focus should be on offering feedback that is beneficial to the author. Explicit modeling is necessary for this protocol to be used successfully.

Materials

- Product descriptors and rubrics
- Revision checklist or questions
- Anchor chart for protocol norms (see Peer Critique for suggested norms)

Procedure

1. Provide product descriptors and rubrics as clear guidelines of the expectations and criteria for the piece of work that will be critiqued. If the work is written, copies for the critique group are helpful.
2. As a whole group, create or refer to a list of revision questions based on the criteria for the piece of work.
3. Model the procedure with the whole group before allowing small independent feedback groups.
4. Have students work in groups of 2-5.
5. The first student presents/reads the draft of her piece. She may ask peers to focus on a particular revision question or two that she is struggling with from the list.
6. Peers first focus on what is praiseworthy or working well. Praise needs to be specific. Simply saying, “This is good” doesn’t help the creator. Comments such as, “I notice that you used descriptive picture captions” or “You have a catchy title that makes me want to read your piece” are much more useful.
7. Next, ask questions and offer helpful suggestions. “This part is unclear. I wonder if it would be better to change the order of the steps?” or “I can’t tell the setting. Maybe you could add some details that would show the reader where it is taking place?” or “I wonder if adding a graph to highlight your data would be effective?”
8. Feedback should relate to the revision questions identified by the group or presenter.
9. After each member of the group has offered feedback, the presenter discusses which suggestions he wants to implement and thanks the group.
10. Others then present their work in turn and cycle through the feedback process.

Variations

- Give time guidelines for each part of the protocol, so students don’t get “stuck” on a particular type of feedback.

- Feedback can be written on sticky notes and given to the author.

Quiz-Quiz-Trade

General Protocols and Strategies

Purpose

Quiz-Quiz-Trade is a vocabulary reinforcement protocol that allows students to both review key vocabulary terms and definitions from their reading and get them moving and interacting with peers.

Materials

- Vocabulary strips, sticky notes, or 3x5 cards (see following for example)

Procedure

1. Choose fifteen to twenty high frequency academic and/or domain specific words from class reading(s)
2. Create vocabulary 'strips' with these words, that can be folded vertically so one side of the slip shows the word, and the other side of the slip has the definition. See the following for an example.

Foliage	Plant life
Marvelous	Amazing; spectacular; wonderful
Ascent	Climb; move upward
Sort	Place into categories; arrange; classify
Specimens	Examples; samples; a type of something

3. Give each student one vocabulary strip.
4. Each student finds a partner.
5. Partner A shows the side of the paper with the word on it to his/her partner.
6. Partner B says the definition (if he/she knows it), or finds the word in the text and tries to determine the definition, using context clues.
7. Partner A then reads the definition aloud to confirm or correct the definition that Partner B gave.
8. Partners switch roles and repeat the steps above.
9. Partners then trade vocabulary slips and find a new partner.
10. Students should meet with at least 2 or more partners during this activity (5-10 minutes)
11. After completing the steps above, gather students as a whole group. Make sure to review and emphasize vocabulary that you want students to know and understand, since individual students will not have the opportunity to see and define every key term during this activity.

Variations

- List a word more than once if it is essential to students' understanding of text or used more frequently than other words in common texts).
- Allow students to ask for “hints” from their partner if they get stuck; partners can also eventually give the word, helping their partner to understand what it means.
- Modify cards: print them in Braille, or accompany with a picture.
- Use with other content – math facts, for example.

References

- This material has been adapted with permission pending from Kagan Publishing & Professional Development from the following book: Kagan, Spencer & Kagan, Miguel. *Kagan Cooperative Learning*. San Clemente, CA: Kagan Publishing, 2009. 1-800-933-2667. www.KaganOnline.com

Rank-Talk-Write

General Protocols and Strategies

Purpose

This protocol, adapted from “Pause, Star, Rank” in Himmele and Himmele’s *Total Participation Techniques* (2011), allows students to actively review their notes about new concepts as well as analyze and discuss the importance of key ideas they identify.

Materials

- White board/chart paper/poster paper
- Writing implements
- Note papers

Procedure

1. During or after reading a text, students independently write a summary sentence for each key idea or concept they identify.
2. Students then rank the summary sentences in order of importance (“1” next to most important, “2” and “3” next to the second and third most important summaries of each concept.)
3. In groups, students share out the concepts they ranked, explaining why they ranked each concept as they did in terms of importance.
4. Each group determines which one concept they think is most important, and discusses the best summary statement for that idea or concept.
5. A scribe from the group writes the summary statement of the idea or concept on a white board, piece of chart paper, or large blank page.
6. Small groups share their idea summary statement with the large group.

Variations

- Provide the summary sentences to be ranked for the students.
- Provide the summary sentences to be ranked for the students, and include at least one that is inaccurate or off the mark as a formative assessment of how students respond to the erroneous information.

References

- Himmele, P., & Himmele, W. (2011). *Total participation techniques: Making every student an active learner*. Alexandria, VA: ASCD.

Say Something

General Protocols and Strategies

Purpose

This is a paired reading strategy that provides students with a structure for reflecting on a portion of text. Students think out loud, listen closely to each other, and develop shared understanding of the text. The time frame for this protocol is intentionally brief.

Materials

- A common text

Procedure

1. For the portion of text students will read, choose the stopping point(s), or have partners decide together how far they will read silently before stopping to “say something.”
2. Describe what students will say to each other when they reach the stopping point: it might be a question, a brief summary, a key point, an interesting idea, or a new connection.
3. Model. Provide one or two examples of what a student might say at each stopping point. Be sure that the modeled statements or questions are succinct, thoughtful, and related to the text.
4. Have students begin reading the text.
5. Once partners have reached the chosen stopping point, they each in turn “say something” to each other about the text.
6. Have partners continue the process, stopping at each chosen stopping point, until the selection is completed.
7. After a designated time, engage the whole group in a discussion of the text.

Variations

- Post a public timer displaying the full time allotment, so partners can determine how long to converse and how quickly to move on to the next reading.
- To focus the paired interactions or to stimulate a specific type of thinking, the teacher may want to provide a stem for completion. For example, “A question that comes to mind when I read this is ...” Use the same stem, or provide variation for each stopping point.

References

- Egawa, K., & Harste, J. (2001, January 1). Balancing the literacy curriculum: A new vision. *School Talk*, 35-57.

Science Talks

General Protocols and Strategies

Purpose

Science Talks are discussions about big questions. They are appropriate for any grade level, but they are particularly useful for elementary school. Like a Socratic Seminar, Science Talks deal with provocative questions, often posed by students themselves. Science Talks provide space for students to collectively theorize, to build on each other's ideas, to work-out inchoate thoughts, and to learn about scientific discourse. Most importantly, they allow all students to do exactly what scientists do: think about, wonder about, and talk about how things. These Talks provide a window on student thinking that can help teachers figure-out what students really know and what their misconceptions are. Armed with this insight, teachers can better plan hands-on activities and experiments.

Materials

- Guiding question for the Science Talk, determined beforehand

Procedure

1. Choose the question. The best questions are provocative and open-ended, so as to admit multiple answers and theories. Often, students generate great questions for Science Talks. Teachers can also generate questions based on their own wonderings.
2. Introduce Science Talks to students. Gather students into a circle on the floor. Introduce the first Science
3. Talk by discussing what scientists do
4. Then ask, "What will help us talk as scientists?" Record the students' comments, as these will become the norms for your Science Talks. If the students don't mention making sure that everyone has a chance to talk, introduce that idea, as well as how each person can ensure that they themselves don't monopolize the conversation. Stress how each student's voice is valued and integral to the success of a Science Talk
5. Set the culture. Students direct their comments to one another, not to the teacher. In fact, the teacher stays quiet and out of the way, facilitating only to make sure that students respectfully address one another and to point out when monopolizing behavior occurs. In a good talk, you'll hear students saying, "I want to add to what Grace said..." or "I think Derek is right about one thing, but I'm not so sure about..."
6. Another good question to pose is "How will we know that what we've said has been heard?" Students will readily talk about how they can acknowledge what's been said by repeating it or rephrasing before they go on to add their comments. This is a great place to add (if the students don't) that talking together is one way scientists build theories
7. A typical talk lasts about 30 minutes. Take notes during the talk about who is doing the talking, and to record particularly intriguing comments.

Variations

- With young students, do a movement exercise that relates to the Science Talk. For a talk on how plants grow, students may be invited to show, with their bodies, how plants grow from bulbs. Not only does this give students a chance to move before more

sitting, it also gives them a different modality in which to express themselves. Sometimes the shyer students also find acting something out first helps them to verbalize it.

- Have students prepare for a Science Talk by reading and annotating pertinent texts. Combining Science Talk with a Jigsaw or another text-based protocol could work well here.
- Pair a Science Talk with a writing activity on the same topic.
- Record the talks. Replaying the tapes later helps to make sense of what at first hearing can seem incomprehensible. Students also love hearing the tapes of Science Talks.

Socratic Seminar

General Protocols and Strategies

Purpose

Socratic Seminars promote thinking, meaning making, and the ability to debate, use evidence, and build on one another's thinking. When well designed and implemented, the seminar provides an active role for every student, engages students in complex thinking about rich content, and teaches students discussion skills.

Materials

- Provocative question for discussion, chosen beforehand
- Associated text(s)
- Anchor chart for protocol norms

Procedure

1. Select a significant piece of text or collection of short texts related to the current focus of study. This may be an excerpt from a book or an article from a magazine, journal, or newspaper. It might also be a poem, short story, or personal memoir. The text needs to be rich with possibilities for diverse points of view.
2. Develop an open-ended, provocative question as the starting point for the seminar discussion. The question should be worded to elicit differing perspectives and complex thinking. Students may also generate questions to discuss.
3. Students prepare for the seminar by reading the chosen piece of text in an active manner that helps them build background knowledge for participation in the discussion. The completion of the pre-seminar task is the student's "ticket" to participate in the seminar. The pre-seminar assignment could easily incorporate work on reading strategies. For example, students might be asked to read the article in advance and to "text code" by underlining important information, putting questions marks by segments they wonder about, and exclamation points next to parts that surprise them.
4. Once the seminar begins, all students should be involved and should make sure others in the group are drawn into the discussion.
5. Begin the discussion with the open-ended question designed to provoke inquiry and diverse perspectives. Inner circle students may choose to move to a different question if the group agrees, or the facilitator may pose follow-up questions.
6. The discussion proceeds until you call time. At that time, the group debriefs their process; if using a fishbowl (see below), the outer circle members give their feedback sheets to the inner group students.
7. Protocol norms: Students...
 - Respect other students. (Exhibit open-mindedness and value others' contributions.)
 - Are active listeners. (Build on one another's ideas by referring to them.)
 - Stay focused on the topic.
 - Make specific references to the text. (Use examples from the text to explain their points.)
 - Give input. (Ensure participation.)

- Ask questions. (Clarifying questions, and probing questions that push the conversation further and deeper when appropriate.)

Variations

- Combine with the Fishbowl protocol. When it is time for the seminar, students are divided into two groups if there are enough people to warrant using a fishbowl approach. One group forms the inner circle (the “fish”) that will be discussing the text. The other group forms the outer circle that will give feedback on content, contributions, and/or group skills. (Note: “Fishbowls” may be used with other instructional practices such as peer critiques, literature circles, or group work. If the number of students in the seminar is small, a fishbowl does not need to be used.) Each person in the outer circle is asked to observe one of the students in the inner circle. Criteria or a rubric for the observations should be developed by/shared with students in advance: see the following example.

Did the Student...	Consistently	Occasionally	No	Notes/Comments
Respond to other students' comments in a respectful way?				
Listen attentively without interruption?				
Use eye contact with peers?				
Exhibit preparation for the seminar?				
Reference the text to support response?				
Participate in the discussion?				
Ask clarifying and/or probing questions				

- Provide sentence stems that allow students to interact positively and thoughtfully with one another: “I’d like to build on that thought...” “Could you tell me more?” “May I finish my thought?”

References

- Israel, E. (2002). Examining multiple perspectives in literature. In *Inquiry and the literary text: Constructing discussions in the English Classroom*. Urbana, IL: NCTE.

Take a Stand

General Protocols and Strategies

Purpose

Students articulate and reflect on their opinions about controversial questions. This protocol not only provides practice in the social dimensions of debate, but encourages students to support, reflect on, and possibly change their opinions based on logic and evidence.

Materials

- Large “Strongly Agree” and “Strongly Disagree” signs

Procedure

1. Post two signs at either end of an imaginary line that goes across the classroom. At one end of the line, post “Strongly Agree.” At the other end, post “Strongly Disagree.”
2. Tell students that today they will be using the Take a Stand protocol, which will allow them to share and explain their opinions. After they hear a statement, they will move to a place on an imaginary line that best reflects their beliefs.
3. Explain the steps of the protocol:
 - After the teacher makes a statement, she will pause for students to think and then ask all students to move to the place on the imaginary line that best reflects their opinions. Point out that since one side of the room is labeled “Strongly Disagree” and the other side labeled “Strongly Agree,” this means that the midpoint of the line is undecided.
 - The teacher will ask students to share and justify their opinions, making sure to hear from people on different parts of the line. If appropriate, students should use textual evidence.
 - If a student hears an opinion that changes his mind, he can move quietly to a different part of the line.
4. Model how the protocol will work. Make a statement (such as, “Chocolate ice cream is delicious”) and show students how you would move to reflect your opinion. The modeling helps students internalize how to use the invisible line.
5. As you use the protocol, repeat each statement twice.

Variations

- Students may stand up or sit down in their places.
- The line may be physically drawn or taped across the room to aid in the protocol.
- Use the protocol to enhance the writing process for persuasive or argumentative pieces.
- Use the protocol as an effective formative assessment.

Tea Party

General Protocols and Strategies

Purpose

As described by Kyleene Beers in her book *When Kids Can't Read: What Teachers Can Do*, this protocol offers students a chance to consider parts of the text before they actually read it. It encourages active participation and attentive listening with a chance to get up and move around the classroom. It allows students to predict what they think will happen in the text as they make inferences, see causal relationships, compare and contrast, practice sequencing, and draw on prior knowledge. This protocol is very similar to Mystery Quotes, but with a strong focus on pre-reading, hence its description as its own protocol.

Materials

- Phrases, sentences, or words directly from the text copied onto strips or index cards, one per student
- Recording form for predictions and questions, one per student

Procedure

1. Decide on phrases, sentences or words directly from the text to copy onto strips or index cards.
2. Don't paraphrase the text. You may omit words to shorten a sentence, but don't change the words.
3. Have students organized into groups of four or five.
4. Hand out strips or cards with phrases from the text; two (or more) students will have the same phrases.
5. Each student independently reads their phrase and makes a prediction about what this article could be about. Then, write a quick statement on their prediction recording form.
6. Next students mingle around the room, reading to each other and discussing possible predictions.
7. Return to the small groups and, as groups, write a prediction starting with "We think this article will be about..., because...." Also, list questions they have.
8. Now, read the selection. Students read independently or as a group, highlighting information that confirms or changes their predictions.
9. Write a statement on the second part of the recording form about revised predictions. Also continue to list lingering questions.

Variations

- Use this protocol as a kickoff to a larger unit or expedition on the topic in question.
- Have students remain in their groups for the protocol instead of mingling, or have them work in pairs.

References

- Adapted from: Original © by Debbie Bambino adapted from: Beers, G. (2003). *When kids can't read, what teachers can do: A guide for teachers, 6-12*. Portsmouth, NH: Heinemann.

Think-Pair-Share

General Protocols and Strategies

Purpose

This protocol ensures that all students simultaneously engage with a text or topic. It allows students to recognize, (commit to paper), and speak their own ideas before considering the ideas of others; it also *promotes synthesis and the social construction of knowledge*.

Materials

- Guiding questions, decided beforehand
- Optional: recording form with questions and answer spaces for students

Procedure

1. Students are given a short and specific timeframe (1-2 minutes) to independently and briefly process their understanding/opinion of a text selection, discussion question, or topic (this is the “thinking” part of Think-Pair-Share)..
2. Students then share their thinking or writing with a peer for another short and specific timeframe (e.g. 1 minute each).
3. Finally, the teacher leads a whole-class sharing of thoughts, often charting the diverse thinking and patterns in student ideas. This helps both students and the facilitator assess understanding and clarify ideas.

Variations

- Pair the Think-Pair-Share protocol with a close reading lesson to allow students time and space to collaboratively work on their answers to text-dependent questions.
- Allow students to facilitate the whole-class sharing.

References

- Lymna, F. (1981). The responsive classroom discussion: The inclusion of all students. In *Mainstreaming digest*. College Park, MD: University of Maryland College of Education.

World Café

General Protocols and Strategies

Purpose

To discuss a topic or various topics, rotating the role of leadership and mixing up a group of people. This protocol is an extensive exercise in listening and speaking skills.

Materials

- Chart/poster paper
- Marker for the leader/recorder

Procedure

1. Form three groups of 3 or 4 and sit together at a table.
2. Each group selects a “leader.”
3. The leader’s role is to record the major points of the conversation that takes place at the table and to then summarize the conversation using the recorded notes..
4. The group discusses the topic at hand until time is called. Groups can be discussing the same topic or related topics.
5. The leader stays put; the rest of the group rotates to the next table.
6. The leader (who didn’t move) presents a summary of the conversation recorded from the former group to the new group.
7. Each table selects a new leader.
8. Again, the new leader’s role is to record the major points of the conversation that takes place at the table and to then summarize the conversation using the recorded notes...a bit later.
9. The group discusses the topic at hand until time is called.
10. Repeat the process, ideally until all students have had a chance to lead.
11. After the final round, the last group of leaders present to the whole group rather than reporting out to a “next rotation.”

Variations

- Mix the Room: For large groups, begin with everyone in a circle. Number off around the circle, from one to five. The teacher provides a prompt, and at the teacher’s signal, each group of five clusters into a small circle to discuss a topic for a designated amount of time. The teacher then signals for the 1’s to advance to the next cluster. Ones then provide a summary of the last group’s discussion, before the newly formed group discusses a second prompt. Each time a new prompt is given, the teacher asks a different number to move forward to the next cluster, thus “mixing the room” for each new prompt.

References

- Adapted from: www.theworldcafe.com

Catch and Release

Checking for Understanding Strategies

Purpose

When students are working on their own, they often need clarification or pointers so they do not struggle for too long or lose focus. Catch and Release allows them to retrain their attention on the learning, and seek the answers or clarification they need for any questions that have come up during the preceding work time.

Materials

- Optional: public timer

Procedure

1. Set a small, manageable “chunk” of work time for students.
2. Circulate during the work time. Synthesize and take note of persistent questions or confusions.
3. Bring the class back together after the work time. Very briefly, answer or clarify as needed any questions students have had about the work.
4. Repeat the cycle.

Variations

- A useful ratio of work time to checks for understanding or clarifying information is 7 minutes of work time (release), followed by 2 minutes of teacher-directed clarifications or use of quick-check strategies (catch).

Cold Call

Checking for Understanding Strategies

Purpose

Cold Call serves as an engaging and challenging yet supportive way to hold students accountable for answering oral questions the teacher poses, regardless of whether a hand is raised. Cold Call requires students to think and interact with the question at hand, even if they're not sure of the answer. Cold Call also promotes equity in the classroom; students who normally dominate the discourse step back and allow other students to demonstrate their knowledge and expertise.

Materials

- Optional: equity sticks, name cards, or tracking chart

Procedure

1. Name a question before identifying students to answer it.
2. Call on students regardless of whether they have hands raised.
3. Scaffold questions from simple to increasingly complex, probing for deeper explanations.
4. Connect thinking threads by returning to previous comments and connecting them to current ones; model this for students and teach them to do it too.

Variations

- Call on students using equity sticks, name cards, or a tracking chart to ensure that all students contribute.
- Pair Cold Call with No Opt Out to ensure that students have full access to the correct answers to the questions asked.
- Hot Seat: Place key reflection or probing questions on random seats throughout the room. When prompted, students check their seats and answer the questions. Students who do not have a hot seat question are asked to agree or disagree with the response and explain their thinking.

References

- Lemov, D. (2010). *Teach like a champion: 49 techniques that put students on the path to college*. San Francisco, CA: Jossey-Bass.

Equity Sticks

Checking for Understanding Strategies

Purpose

Equity sticks are true to their name: they ensure academic equity by allowing teachers to physically track who they have called on or interacted with during the course of the class. This is especially useful during whole-class discussions or while working with large groups of students.

Materials

- Wooden sticks (e.g. tongue depressors or popsicle sticks) or cards with a student's name of each

Procedure

1. Pose a question to the class.
2. After giving students some think time, call on a student for an answer. As you do so, move the equity stick from one location to another, indicating that the student has participated in class that day.

Variations

- Pair equity sticks with Cold Call by choosing a stick or card randomly for a student response.
- Color in one end of the equity stick. Instead of moving the whole stick, flip the stick upside down in its container to indicate via color that the student has been called on.

Fist-to-Five

Checking for Understanding Strategies

Purpose

To physically show degree of agreement, readiness for tasks, or comfort with a learning target/concept. Fist-to-Five creates a clear visual for teachers to use when checking for understanding.

Materials

- None

Procedure

1. Students show their thinking by holding up a fist (or placing a hand near the opposite shoulder) for disagree, or one to five fingers for higher levels of confidence or agreement.

Variations

- Thumb-Ometer (and other “-Ometers”): To show degree of agreement, readiness for tasks, or comfort with a learning target/concept, students can quickly show their thinking by putting their thumbs up, to the side, or down. Get creative with other versions of “-Ometers” that allow students to physically demonstrate where they are with a target

Four Corners

Checking for Understanding Strategies

Purpose

Four Corners allows students to reflect on and synthesize their thinking by using physical movement and visual cues. Like Take a Stand, this protocol can not only provide practice in the social dimensions of debate, but encourage students to support, reflect on, and possibly change their answers based on the knowledge of their peers.

Materials

- Signs indicating the question and location of the four potential answers

Procedure

1. Students form four groups based on commonalities in their responses to a question posed. For example, you might ask, “Who is a resilient character in the novel *Unbroken*?” and then designate four characters as potential responses, one for each corner of the room.
2. Once students physically move to a “corner” of the room based on their answer, they discuss their thinking, and one student from each group shares the group’s ideas with the whole class.
3. Students in other groups/corners may move to that corner if they change their thinking based on what they hear.

Variations

- The number of groups and responses need not be four: vary the number based on your purpose.

Go Around

Checking for Understanding Strategies

Purpose

One of the most efficient means of checking understanding, Go-Around allows teachers to receive responses from all students in a class in regard to a key formative or summative question.

Materials

- Question(s) with very brief answers, prepared beforehand. Examples might be:
- “Share one thing that you have learned in class today.”
- “Give an example of someone who is ‘resilient.’”
- “Choose one adjective to describe how you’re feeling about the exam coming up tomorrow.”

Procedure

1. Ask students to respond to a standard prompt one at a time, in rapid succession around the room.
2. You may then conduct a whole-class discussion on any patterns or interesting observations you made about the answers.
3. Be sure to develop a question that is somewhat open-ended: in other words, that will require students to think of an original answer, versus parroting each other.

Variations

- Go-Around can serve as a satisfying and powerful opening or closing to a lesson or work time.

Guided Practice

Checking for Understanding Strategies

Purpose

Teachers often provide Guided Practice in a lesson after students grapple with a concept or a text, before releasing them to independent application. Guided Practice provides a model for how the independent work will run as well as a concrete representation of the goal of the work.

Materials

- Optional: Recording form to note which students need more individual attention after Guided Practice

Procedure

1. During Guided Practice, students quickly try the task at hand in pairs or in a low-stakes environment.
2. Strategically circulate, monitoring students' readiness for the task and noting students who may need re-teaching or would benefit from an extension or a more challenging independent application.
3. Use an appropriate quick-check strategy to determine needs for differentiation during independent application time. Be sure to check for understanding from all students before moving on from Guided Practice. Ensure that all students have an opportunity to respond to questions, receive feedback, and practice alongside the teacher until they are fluent in the content/task.

Variations

- Break content into smaller “chunks” to scaffold understanding.
- Ask “fuzzier” questions that do not necessarily have discrete answers, and require students to explain their thinking.
- Make Guided Practice a game. Games increase engagement and focus.
- Combine Guided Practice with protocols that allow students to share their work during the practice session, such as Gallery Walk or Think-Pair-Share.

Human Bar Graph

Checking for Understanding Strategies

Purpose

A quick, visual, and engaging method of determining where students are in relation to a learning target. Like Fist-to-Five, the Human Bar Graph asks students to self-assess and share their impressions of their learning with their teacher and peers.

Materials

- Signs or designations for the graph levels of mastery posted in the room

Procedure

1. Identify a range of levels of understanding or mastery (e.g., beginning/developing/accomplished or confused/I'm okay/I'm rocking!) as labels for three to four adjacent lines.
2. Have students then form a human bar graph by standing in the line that best represents their current level of understanding.

Variations

- Learning Line-Ups: Identify one end of the room with a descriptor such as “Novice” or “Beginning” and the other end as “Expert” or “Exemplary.” Students place themselves on this continuum based on where they are with a learning target, skill, or task. Invite them to explain their thinking to the whole class or the people near them.

No Opt Out

Checking for Understanding Strategies

Purpose

No Opt Out is a powerful method of supported accountability in a classroom. Any student who answers a question is responsible for giving the correct answer in that moment. Mistakes are not ignored, punished, or cause for embarrassment, but a part of the learning territory. By being provided with the correct answer from a peer, students feel challenged but safe.

Materials

- Predetermined questions to pose to students

Procedure

1. Require all students to correctly answer a question posed to them (in cases when questions actually have a “correct” answer).
2. Follow up on incorrect or partial answers by questioning other students until a correct answer is given by another student, through either Cold Call or calling on a volunteer.
3. Return to any student who gave an incorrect or partial answer. Have them give a complete and correct response, based on the correct response just given by their peer.

Variations

- Give a student a “memory cue.” “Who can tell Alisa where she can find the answer?” or “Who can tell Alex the first thing that he can do to find the answer?”
- As an extension, ask a more complex or difficult question to the same student: “Good. Let’s try a hard one.”

References

- Lemov, D. (2010). *Teach like a champion: 49 techniques that put students on the path to college*. San Francisco, CA: Jossey-Bass.

Presentation Quiz

Checking for Understanding Strategies

Purpose

A summative assessment of a peer's presentation lends gravitas and importance to the material, and sends the message that all contributions to learning are important and valued. It also serves as a means of anchoring student accountability and engagement in the presentation.

Materials

- Short summative quiz on information shared in a peer presentation (multiple choice, one or two short responses, true/false, etc.

Procedure

1. When peers present a project, speech, or other academic presentation, ensure that other students know they are responsible for learning the information.
2. Pair student presentations with short quizzes on the presentation material at the end of class.
3. Grade these as you would any other summative assessment.

Variations

- Have the student presenting create and grade the quiz.

Red Light, Green Light

Checking for Understanding Strategies

Purpose

Red Light, Green Light, and other related strategies, help students and teachers visualize student comfort level or readiness in relation to a learning target using objects, colors, locations, or shared metaphors. Teachers can then adjust their instruction accordingly.

Materials

- Popsicle sticks, cards, or poker chips in three colors (red, yellow, green)

Procedure

1. Students have red, yellow, and green objects accessible (e.g., popsicle sticks, poker chips, cards).
2. When prompted to reflect on a learning target or readiness for a task, students place the color on their desk that describes their comfort level or readiness (red: stuck or not ready; yellow: need support soon; green: ready to start).
3. Teachers target their support for the reds first, then move to yellows and greens.
4. Students change their colors as needed to describe their status.

Variations

- Table Tags: Place paper signs or table tents in three areas with colors, symbols, or descriptors that indicate possible student levels of understanding or readiness for a task or target. Students sit in the area that best describes them, moving to a new area when relevant.
- Glass, Bugs, Mud: After students try a task or review a learning target or assignment, they identify their understanding or readiness for application using the windshield metaphor for clear vision (glass: totally clear; bugs: a little fuzzy; mud: I can barely see).

Tracking Progress

Checking for Understanding Strategies

Purpose

Tracking progress allows students to see their cumulative and collaborative efforts toward mastery of a learning target. This visual representation not only stimulates self-reflection but points to the social and accountable nature of the work. All students work together toward the goal.

Materials

- Poster or individual charts of learning targets and levels of proficiency

Procedure

1. Teachers post a chart on the wall or distribute individual charts displaying learning targets and levels of proficiency.
2. Students indicate their self-assessed level of proficiency by drawing a dot or making a mark on the chart, usually multiple times.
3. Students can use different-colored dots, ink stamps, or markers and dates to indicate progress over time.

Variations

- **Sticky Bars:** Create a chart that describes levels of understanding, progress, or mastery. Have students write their names or use an identifying symbol on a sticky note and place their notes on the appropriate place on the chart.

Turn and Talk

Checking for Understanding Strategies

Purpose

Turn and Talk is one of the easiest, quickest, and most efficient means of creating collaboration among students. It can be used practically at any time, anywhere, in a lesson in any content area.

Materials

- None

Procedure

1. When prompted, students turn to a shoulder buddy or neighbor.
2. In a set amount of time, students share their ideas about a prompt or question posed by the teacher or other students.
3. Depending on the goals of the lesson and the nature of the Turn and Talk, students may share some key ideas from their paired discussions with the whole class.

Variations

- Students can use a written version of Turn and Talk, brainstorming their answers on paper very briefly and sharing them aloud, or switching papers.

White Boards

Checking for Understanding Strategies

Purpose

White boards allow for collective, instantaneous sharing of information or answers to academic questions, and for an assessment of whether knowledge has been retained and learned correctly, both individually and in the class as a whole. White boards are engaging and interactive, and work especially well for vocabulary- and math-based questions.

Materials

- Small white boards, one for each student
- Dry erase marker, one for each student
- Dry eraser or dry eraser cloth, one for each student

Procedure

1. Students have small white boards at their desks or tables.
2. Students are given a question to answer. They write their ideas/thinking/answers down individually on the white board.
3. Students hold up their boards for teacher or peer scanning.

Variations

- Technology such as “clickers” can serve the same purpose as white boards.

Contextual Redefinition

Vocabulary-Building Strategies

Purpose

Contextual Redefinition gives students a point-by-point strategy for using the context of the text to find the meaning of unknown words. It asks students to find the unambiguous information in a text selection and synthesize it with the author's intent. Contextual Redefinition also asks students to pay attention to other “keys” to word meaning in the text, such as grammar and examples. This creates a platform from which students can make informed judgments about what a word might mean.

Materials

- Optional: chart paper or digital camera
- Optional: vocabulary recording form

Procedure

1. Remind students that words have many meanings, and their context is a key component of determining that meaning. Choose words from a text that might be challenge for students to define. Write these words on the board, on chart paper, or under a digital camera.
2. Have students predict definitions for these terms before reading the text. Students' predictions will be “loose” and possibly inaccurate, due to the fact that they are making these predictions independently of reading. Write all student predictions on the board, on chart paper, or under a digital camera.
3. Have the students read the text, annotating where the vocabulary in question occurs.
4. Ask students to revisit their previous definitions and see which reflect the use of these words in the context of the selection.

Variations

- Use dictionaries, thesauri, or other vocabulary references to assist in making meanings clear to students.
- Combine Contextual Redefinition with other vocabulary strategies in this section, such as the Frayer model, to “zoom in” on particular words.

References

- Allen, J. (2007). *Inside words: Tools for teaching academic vocabulary, grades 4-12*. Portland, ME: Stenhouse.
- Cunningham, J.W., Cunningham, P.M., & Arthur, S.V. (1981). *Middle and secondary school reading*. New York, NY: Longman.
- Lenski, S., Wham, M., & Johns, J. (1999). *Reading and learning strategies for middle and high school students*. Dubuque, IA: Kendall Hunt.

Frayer Model

Vocabulary-Building Strategies

Purpose

The Frayer Model is a four-part graphic approach to analyzing and understanding vocabulary. For each word, the Frayer Model asks students to define the term, pinpointing its most important characteristics; and then provide both examples and non-examples of the word. The strength of the model lies in requiring students to both analyze the word's meaning, and then apply that meaning to the determination of examples and non-examples.

Materials

- Frayer Model graphic organizer, one for each student
- List of key vocabulary from a reading selection

Procedure

1. Choose key vocabulary from a reading selection and distribute/display the list to the class.
2. Explain the Frayer Model graphic organizer to the class, using a word of your choice to model the use of the graphic organizer.
3. Have the students break up into pairs.
4. Assign each pair one of the key vocabulary words, and have these groups complete the organizer together.
5. Have student pairs present their models to the class.

Variations

- Have students facilitate the summative discussion at the end of the protocol.
- Have students complete Frayer Models for particularly difficult words prior to a reading as a pre-teaching strategy.
- Combine this strategy with a Gallery Walk to share the information.
- Photocopy student work and distribute as a collated glossary.

References

- Frayer, D., Frederick, W.C., & Klausmeier, H.J. (1969). *A schema for testing the level of cognitive mastery*. Madison, WI: Wisconsin Center for Education Research

List/Group/Label

Vocabulary-Building Strategies

Purpose

The List/Group/Label strategy rests upon the critical thinking required to identify relationships between words. It uses three steps for organizing a general vocabulary list from a text selection into meaningful groups of words.

Materials

- Optional: chart paper or digital camera
- Note-catcher for List/Group/Label, one for each student

Procedure

1. Choose a main idea or concept from a text.
2. Have students brainstorm all the words they think relate to this concept.
3. Divide the class into groups of three or four students.
4. Teams take the brainstormed list and put the words into smaller, meaningful groups, providing evidence and reasoning behind the groupings.
5. Students create an overarching name or label for each of their groupings that reflects their reasoning.
6. Students read the text.
7. Students then revise their terms or groups so that they include information only that matches the concept's meaning in the context of the text.

Variations

- New terms, groups, or labels can be added or revised as students increase their familiarity with the text.

References

- Lenski, S., Wham, M., & Johns, J. (1999). *Reading and learning strategies for middle and high school students*. Dubuque, IA: Kendall Hunt.
- Taba, H. (1967). *Teacher's handbook for elementary social studies*. Reading, MA: Addison-Wesley.
- Tierney, R.J. (2000). *Reading strategies and practices: A compendium (5th ed.)*. Boston, MA: Allyn & Bacon.

Semantic Webbing

Vocabulary-Building Strategies

Purpose

Semantic Webbing builds upon students' background knowledge and experiences, allowing them to organize and synthesize that knowledge with that which they encounter from reading a text. Using a graphic organizer, students create a “map” of their knowledge about themes in a text both before and after reading.

Materials

- Optional: chart paper or digital camera
- Notecatcher for semantic webbing, one for each student

Procedure

1. Write a key word or phrase from the text on the board, on chart paper, or under a digital camera.
2. Have students think of as many words as they can that relate to this word or phrase and record them.
3. Students group the words meaningfully, and label each group with a descriptive title.
4. Share the groupings, and have students decide whether the groupings are appropriate, or should be revised. Write the students' final decisions on the board, on chart paper, or under a digital camera. Have the students read the text.
5. Repeat steps 1-4, revising the groups and terms again as indicated

Variations

- Identify several themes in a reading selection and have students share their background knowledge on these themes. Students should skim the text, and then make predictions on how the themes will be treated. Record the most logical and strongly supported predictions. Then have the students read the text for the purpose of evaluating their predictions, revising their predictions accordingly.

References

- Maddux, C.D., Johnston, D.L., & Willis, J.W. (1997). *Educational computing: Learning with tomorrow's technologies*. Boston, MA: Allyn & Bacon.
- Heimlich, J., & Pittelman, S. (1986). *Semantic mapping: Classroom applications*. Newark, DE: International Reading Association.

SVES (Stephens Vocabulary Elaboration Strategy)

Vocabulary-Building Strategies

Purpose

The Stephens Vocabulary Elaboration Strategy (SVES) is a vocabulary notebook where the student writes and defines any new terms they come across. Students should regularly review these words and work to use them in “real-world” contexts, in both their social and academic experiences. The use of a dictionary, electronic or otherwise, is critical to this strategy; students also study specific texts to decide upon the most context-appropriate definition of certain words.

Materials

- Notebook, one per student

Procedure

1. Ask students to write any new or unclear word in their notebook, and record the context (advertisement, class reading, the sentence in which the words was found, and so on).
2. Students then write dictionary definitions (including the parts of speech) by any new word in their notebooks. Students should choose the most appropriate meaning for the context.
3. Students re-cast the dictionary definition in their own words and record it in their notebook.
4. Regularly review the notebooks. Provide opportunities for students to use their words in other reading assignments, oral class discussions, or writing pieces.

Variations

- Combine vocabulary notebooks with Frayer Model graphic organizers for a rich interaction with new words.
- Have students create electronic notebooks using word processing software or free web-based applications (e.g., Evernote).

References

- Brown, J.E., Phillips, L.B., & Stephens, E.C. (1993). *Towards literacy: Theory and applications for teaching writing in the content areas*. Belmont, CA: Wadsworth.

Vocabulary Squares

Vocabulary-Building Strategies

Purpose

Vocabulary Squares is a strategy best used with texts that are at or slightly above a student's Lexile measure, and it is an effective strategy in cases where the semantic dimension of a text may impede reading fluency. The strategy helps students deepen their understanding of key words necessary to aid comprehension or make meaning.

Materials

- Vocabulary Squares graphic organizer, one for each student

Procedure

1. Vocabulary Squares consist of a four-part grid, each with a different label.
2. For each identified vocabulary word, the student fills in appropriate information in each section of the grid.

Variations

- Some sample labels for the grid include the following:
 - Definition in your own words
 - Synonyms
 - Variations
 - Part of speech
 - Prefix/suffix/root
 - Sketch
 - Symbol

Word Sorts

Vocabulary-Building Strategies

Purpose

Word Sorts allow students to find common roots, spellings, and phonemes; to use their background knowledge to sort words and set a purpose for reading; or to reflect on their learning after reading (Johns & Berglund, 2002). Sorts can be used successfully throughout different content areas.

Materials

- Word collection (on a note-catcher, 3x5 cards, paper strips, or the like)
- Note-catcher with listed word categories

Procedure

1. In closed word sorts, the teacher defines the process for categorizing the words. Students engage in critical thinking to determine which words fit into which category.

Variations

- In open word sorts, the students determine how to categorize the words, using critical thinking to determine their own logical sorts (Vacca & Vacca, 1999).

References

- Johns, J., & Berglund, R. (2002). *Fluency: Questions, answers, evidence-based strategies*. Dubuque, IA: Kendall Hunt.
- Lenski, S., Wham, M., & Johns, J. (1999). *Reading and learning strategies for middle and high school students*. Dubuque, IA: Kendall Hunt.
- Vacca, R., & Vacca, J. (1995). *Content area reading (5th ed.)*. Glenview, IL: Scott Foresman.