



Supplemental Instruction at DePaul University

strategy cards

Strategy Cards are a compilation of collaborative activities that SI Leaders use in small and large groups to engage students and activate higher-order thinking and retention.

Key

F

Facilitation Techniques

General pointers about session facilitation

R

Recall/Review Activities

Checks student understanding of factual material

O

Organization and Visuals

Engages students with material to identify relationships between concepts

P

Problem Solving Activities

Demonstrates students' knowledge via application

S

Study Strategies

Demonstrates and reinforces effective academic habits



Growth Mindset

Activities that encourage a growth mindset

Bloom's Taxonomy Cognitive Domains

Remember +
Understand



Apply +
Analyze

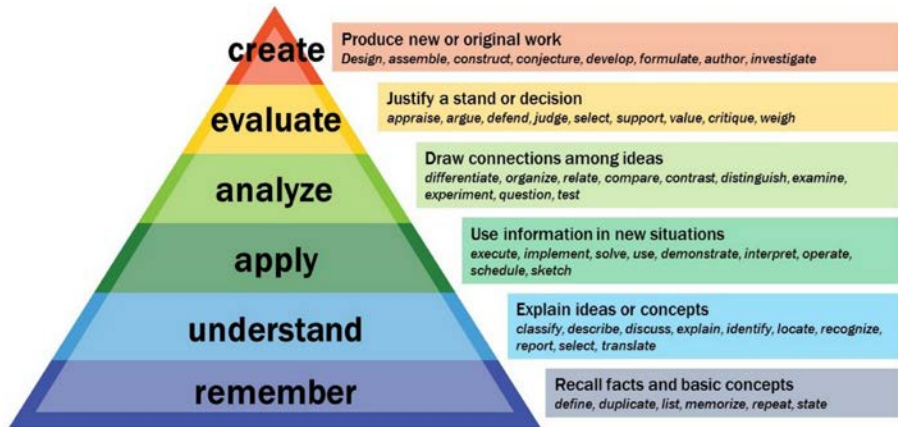


Evaluate +
Create



1. Bloom's Taxonomy (2001)

Use this chart when creating learning outcomes and developing questions for your sessions. Make sure you use a variety of lower and higher level questions appropriately.



2. Redirecting Questions

This core concept of Supplemental Instruction is based on the idea that we all understand things better when we explain them to others. Redirecting questions promotes student-centered learning. It encourages more and better student-to-student interactions in the sessions.

During facilitation, suppress the urge to answer questions directly. Instead, guide students to the answers by redirecting questions back to:

- The individual
- The group
- Notes or Textbook
- Online Search
- Previous lecture

Suggested Phrases for Redirecting Questions:

- Who can help answer that question?
- Let's all look that up in the book/notes!
- What do you think about that?
- Tell us more...
- How would you say that in a different way?
- What do we need to know in order to solve the problem?
- Let's rephrase it on the board and figure out what information we need to answer it.

3. Check for Understanding

How do we know if students are gaining understanding from their interactions in the session? Check for understanding by asking students to confirm they have learned the content.

DON'T

- Ask closed-ended questions such as “Do you understand?” or “Does this make sense?”. These questions only yield “yes” or “no” responses.

DO

- Ask open-ended questions that require higher-order thinking
- Have a student summarize the concept
- Ask for a volunteer to write the main points on the board
- Ask for real-life examples or applications
- Ask for a similar problem, metaphor, or analogy
- Use activities from SI Strategy Cards!

4. Think/Wait Time

Waiting after asking a question allows students to process information and form conclusions for themselves. Waiting 3 seconds is good, but 5 or more is even better! Adjust wait time by considering your audience, difficulty of questions, activities, etc.

Benefits For Students:

- Increased length, accuracy, and complexity of responses
- More voluntary responses
- Greater initiation of discussions

Benefits For Leader:

- Asks fewer questions, but asks more higher-order questions
- Connects questions better
- Demonstrates flexibility
- Expects more from students

If there are no responses after waiting:

- Repeat the question
- Rephrase the question
- Simplify the question
- Ask a student to attempt to rephrase the question
- Break down the question into its component parts
- Make the question more specific
- Ask students what it is about the question they don't understand



5. Mobile Learning

PollEverywhere- <https://www.polleverywhere.com>

- Real-time audience response system

Sli.do- <https://www.sli.do>

- Input answers and crowd source questions on the website

Socrative- www.socrative.com

- Engage students by launching a quiz, creating competition with a space race, receiving exit tickets, and polling students for instant feedback

Google Forms- <https://www.google.com/forms/about/>

- Pre-write a quiz or evaluation that students can respond to from a link

Kahoot- <https://getkahoot.com>

- Create fun learning games

6. Setting the Agenda

Supplies: Post-Its of various colors, wall or whiteboard space

1. Hand Post-Its out so that each student has 3 different colored Post-Its
2. For each color, ask students to write about:
 - An urgent task or concept they would like to discuss
 - An issue or question they have that relates to the bigger picture
 - An issue or question that relates to a micro detail of the lecture
3. Get students to write as many Post-Its notes and stick them to the wall
4. Have students group Post-Its into themes to view overlapping topics
5. Tell the students they can rate any post-it in order of importance to them by allocating up to five dots
6. The Post-Its with the most dots are the topics that you can focus on during the session

7. Stop Light

Supplies: Red, yellow, and green cards

1. Review the agenda topics or a list of concepts with students
2. Give students red, yellow, and green cards and have students change the color based on their comfort level with the material
 - Green means they understand it
 - Yellow means they still need help
 - Red means the material is challenging and they need a lot of help



8. Ask the Right Students

Supplies: Paper, container

1. To avoid only a couple of students answering all of the questions, have every student write their name on a folded slip of paper
2. Tell students that you will randomly select them to answer a question or go up to the board by choosing a student whose slip of paper you have pulled out of a container



9. Assigned Discussion Leader

1. Ask one person in the group to present on a topic or review material for the group and then lead the discussion for the group. This person should not always be the regular group leader.
2. When assigning a discussion topic to individual members of the group, you may need to allow a little time for the person to prepare for the discussion
3. This technique works best when nearly everyone in the group is given an assignment to be the “expert” about a topic

10. First to Five

1. Have the students put their heads down or close their eyes and hold up the number of fingers that represents how much they've understood the material
2. A five means "I completely understand it" and a one means "I still don't get it"



11. Syllabus Quiz

1. Write up a quiz about the information contained on the syllabus, such as due dates, policies, and material
2. Leave time for students to check the syllabus afterwards and for a group discussion



12. Learning Logs

Generally used as an ice breaker.

Have students answer 1 or more of these prompts:

- Write 3 sentences describing what you learned today
- Write 3 questions you have about what we did in session today
- Explain how something you learned today connects to another lesson
- Write the most important idea from today's lesson
- Write 3 questions that might be on the test
- Write an explanation to another student of what you learned
- What was the most interesting thing you learned today? Why?
- What confused you about this lesson?

13. Snowball

Supplies: Paper

1. Students write down a question they have or something they don't understand and crumple the paper, tossing it into a container or across the room (allowing for anonymity)
2. Students take turns reading the questions aloud
3. Leader facilitates group activity to assist students with the answers



14. [3:2:1]

Supplies: Whiteboard, Dry-Erase markers

This strategy can be very useful before an exam.

1. Ask each student to come up with:
 - 3 topics that they know well enough to “teach” the other students
 - 2 topics they do not understand and need further assistance with
 - 1 possible exam question
2. Ask each student to write their 3:2:1 topics on the whiteboard. Most of the time topics will overlap, allowing students to teach the other students who need additional assistance.
3. Follow up with a discussion of the possible exam questions.



15. One-Minute Paper

Supplies: Paper, pens

The one minute paper is designed to help students realize what they know or do not know (i.e. “check for understanding”)

1. Ask the students to write a sentence or paragraph on a related topic you suggest. Remind them it is most important that they put their thoughts on paper in their own words, not that they produce a polished piece of writing.
2. Ask each student to share their response with the group or a partner. Additionally, you may choose to encourage conversation regarding similarities and differences between students’ ideas.



16. Clear Skies/Muddy Waters

Supplies: Paper, pens

1. Ask the students to write the clearest or most important thing they learned from the lecture or reading.
2. Then, ask them to write the “muddiest” point from the lecture or reading.
3. Collect the responses and use them when setting the agenda.



17. Pub Quiz

Supplies: Flip chart paper, pens, textbook or notes

1. Split your students into two groups.
2. Have each group come up with six or more questions that can be posed to the other group.
3. Each group will then take turns asking questions to each other.
4. It is best if the quiz is followed by a debriefing where the short answers to the questions are expanded upon through discussion. Allow time for students to concur or disagree – this will encourage discussion.



18. Memory

Supplies: 12 – 24 notecards with key vocabulary/definitions

This strategy works as a great opener for a session.

1. Prepare 12-24 note cards. Half of the note cards should have vocabulary terms and the other half should have corresponding definitions.
2. At the session, shuffle the note cards and place them facedown.
3. Allow the first student to turn over two cards at a time until a match is found. Once a match is found, ask the student to remove that pair of cards and allow another student to take a turn finding a match.
4. Students continue taking turns until all cards have been paired together.



19. Taboo

Supplies: Notecards or Post-It notes

1. Split your students up into teams or pairs for this activity.
2. Ask students to prepare note cards with course relevant vocabulary (individual words) plus one additional word that is related, for example:
 - main word: *University*, related word: *Education*
3. One at a time, each person in the group must explain the vocabulary term to the other group members without using any of the words written on the notecard.
4. The group members must then guess the vocabulary word based on the student's explanation.



20. Verbal Volleyball

Supplies: Whiteboard, ball

1. Arrange students in a circle.
2. Have one student toss another student the ball while asking a question related to the course material.
3. After the student who caught the ball answers a question, they will toss the ball to someone new. Continue to get the students to “volleyball” concepts until all of their ideas are exhausted.
4. Once the group has finished you could list any concepts that may have been missed or need further discussion.



21. Around the World

Supplies: None

1. Before the session, make up a number of questions with simple answers (one word or short phrase).
2. Sit your group in a large circle.
3. Ask two students to stand up next to each other and ask them a question.
4. The first student to answer correctly walks and stands next to the next student in the circle (who then stands up) to try another question against a new opponent, while the other sits back down.
5. To win the game, a student must travel "Around the World" -win against every other student in the classroom.



22. Summarize the Lecture

Supplies: Whiteboard, Dry-Erase markers

1. As a group, summarize the lecture from the previous class. You may have to provide prompts for the students.
 - For example, “The first concept discussed was X, what points did the lecturer highlight on this topic?”
2. You may want to ask them to try summarizing without looking at their notes; however, if they are having difficulty remembering, have them refer to their resources.
3. You could get them to construct notes as a whole using concept mapping or the Cornell method – educate them on note-taking strategies during the process.



23. Review Cards

Supplies: Blank notecards

1. Take a stack of index cards with you to your session and ask the students to construct the cards during the session.
2. Show the students how to make them and how to use them during your session.
3. Write the cue or question on one side of the card and write the definition, description, or answer on the other side.
4. Encourage the students to place the relevant cards in a place where they can see them regularly to assist them in remembering important information.



24. Think-Pair-Share

Supplies: None

This activity is particularly good for people in the group who prefer not to talk in front of lots of people at first. It can build students' confidence in their answers gradually.

1. The students should be given a question, concept, or problem and then encouraged to think about it alone for a (short) designated time period.
2. They pair with another student and discuss what they found individually for an additional time period.
3. The pairs join the large group and discuss their conclusions as a whole.



25. Jigsaw

Supplies: None (But you could use reading material if appropriate)

1. The large group is divided into 2 or more groups (3-4/group) and each group is assigned a topic/task/step in problem.
2. In their groups they all become an “expert” at their given topic.
3. Students then move from their expert group to a new jigsaw group in which each student acts as the only expert in their specific topic and teaches the material to rest of group.
4. Each new jigsaw group consists of 3-4 students prepared to teach the topic to their peers.



26. Informal Quiz

Supplies: None

1. The quiz should consist of 5-7 questions that are read aloud by the SI leader. The questions should require short answers.
2. The students should not be encouraged to talk or share answers; however, they can refer to notes or text book.
3. If they do not have the answer they can write down the question.
4. The quiz should be followed by a debriefing where the short answers to the questions are expanded upon through discussion.
5. Allow the students to answer the questions in any order, have the student restate the question and give their answer.
6. Allow time for other students to concur or disagree and encourage discussion.



27. K.W.L (Know-What-Learned)

Supplies: Whiteboard, Dry-Erase markers

This activity helps students to activate prior knowledge and link to new information to make connections with what is already known.

1. Ask the students to draw 3 columns and title them: What I Know; What I Want to know and What I Learned.
2. This can be used to help focus the session on particular concepts that students are having difficulties with.
3. Working as a whole group, or individually, students fill in the K and W columns relating to a particular module topic.
4. Towards the end of the session ask students to review their “Know” column to see if any information needs to be corrected, then see if there are any “What” questions left unanswered (these could be the focus of your next session).
5. Finally, complete the “Learned” column.



28. Jeopardy

Supplies: About 30-35 questions at different levels of difficulty and in different categories.

Use *jeopardylabs.com* for free templates.

1. Form small groups and let them know the rules: No books or notes.
2. Designate a different person to answer each question, but the team can discuss the concept before giving the answer.
3. If the question is missed, the other team can steal. Teams keep control of the board with correct “questions”, or alternate from group to group.



29. Summarize the Steps

This technique is as simple as the name! Simply have students summarize the procedure or steps they used for completing a problem.

This will help students review the process of the learning that has taken place. It is important to cover how an answer was obtained rather than just making sure the answer was correct. This technique will ensure that they will be able to satisfactorily complete more of the same type of problems in their homework or on a test.



30. Think Aloud

Supplies: Piece of difficult course reading

1. Verbalize your thoughts while you are reading orally or working out a problem.
2. Students will understand comprehension strategies better because they can see how the mind can respond to thinking through trouble spots and construct meaning for themselves from the text.



31. Clusters

1. Divide the students into smaller groups for discussion. They may also be allowed to self-select the small group they want to be in.
2. After discussing the assigned topic, the cluster may report its findings to the large group.
3. See that each group is provided a space on the board to record important points of its discussion.
4. Allow time for each group to report back to the large group. You may have to assign someone from each group to report back.



32. Word Wall

1. Write terms on individual pieces of paper or tag board and posted on a wall.
2. The Word Wall can include definitions, examples, illustrations, and real-world connections.
3. Place the Word Wall so that students can refer back to it during the rest of the session.



33. Three Before Me

This is a good strategy to model at the beginning of the quarter and use throughout. This can help with redirecting questions and to encourage student to student interaction.

1. When a student asks a question during a session, have 3 students (or less depending on the size of your session) comment on a unique feature of that idea.
2. The SI leader will mediate correct responses and help fill in gaps in understanding.



34. Guess Your Vocab Term

1. Put a different name, topic, theory, or vocabulary term on a Post-It.
2. Have each student put a Post-It on their forehead without looking at it.
3. Students will walk up to each other and describe the word on the Post-It, trying to get the other student to guess what word they are wearing.



35. Rainbow Brain Dump

Supplies: Differently colored Dry-Erase markers

1. As students walk in, put 4-5 main topics from lecture on the board.
2. Give the markers to each student and ask them to write anything remembered from lecture about each topic, feeding off the information from others.
3. Start the discussion from what is on the board.



36. Venn Diagram

Supplies: Whiteboards, Dry-Erase markers

1. Two or three overlapping circles are drawn on the board with each circle labeled as one of the two or three concepts.
2. Students will then write the similarities in the overlapping portion and then differences in the outer portion of the circles.



37. Matrix

Supplies: Whiteboard, Dry-Erase markers

1. Draw a matrix on the whiteboard and ask the students to label each axis with a key concept.
2. Continue to discuss and write up how these concepts interrelate.



38. Timeline

Supplies: Whiteboard, Dry-Erase marker

1. Begin with a horizontal line that represents the continuum of time.
2. Important events are inserted relative to each other, creating points on the line.
3. Each point that denotes an event should be marked with the date, a brief description of the event, and significant person(s) involved.

Double Timeline Version

1. Construct a very general timeline of events pertaining to the same time as the dates presented in the lecture.
2. Present this general timeline to the group and have them construct a duplicate timeline pertaining to the lecture material directly below the one you have constructed.



39. Visuals (Drawings/Doodles)

Supplies: Flip chart paper and colored markers, or whiteboard

1. Ask your group as a whole, or in pairs, to come up with a visual representation of a key concept – using as few words as possible.
2. Ask the groups to spend some time after drawing the concept to describe/ explain the visual to other groups. Or even better, ask the groups to try and decipher each other's drawings.



40. Vocabulary Development

Supplies: Paper and pens, lecture notes

Chunking related terms into meaningful groups can be more helpful than drilling students on exact definitions.

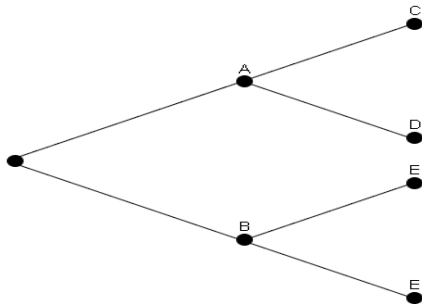
1. Ask the students to compose a list of key terms from the lecture ranging in levels of complexity.
2. Scramble the terms and then encourage pairs of students to organize the terms into several categories that are meaningful to them.
3. Then ask them to define or give an example of additional key terms where appropriate.
4. Finally, ask each pair to discuss their categories with the entire group. Get the students to check the spelling throughout!



41. Tree Diagrams

Supplies: Flipchart paper and colored markers, or whiteboard

1. The trunk represents main topic and the branches represent the facts, factors, influences, traits, people, or outcomes that are associated.



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42. Word Cards

Supplies: Notecards

1. Divide Index Cards into the following quadrants:

- Quad 1: Word
- Quad 2: What the word means
- Quad 3: What the word doesn't mean (non-example)
- Quad 4: Illustration

Math Example:

- Quad 1 would have the name of an algorithm or process (for example, writing the equation of a line)
- The steps to the process would be included in Quad 2, and common mistakes in Quad 3
- Quad 4 could still be an illustration, or could be a list of times when you would use the process in math problems or when the process would be helpful in real life scenarios



43. Incomplete Outline

The incomplete outline is an excellent means of helping the students recognize the main points and the organizational pattern of information given in lecture. It can also be used for the textbook information. Determining the major points can help to sort information and locate the ideas being communicated.

1. Create a set of incomplete lecture notes by making an outline with some of the parts missing. Example:
 - I. Biogeochemical Cycles
 1. Carbon Cycle
 - A.
 - B.
 2.
 - A. Nitrogen Fixation
 - i.
2. The groups must then work with their notes to fill in the outline.



44. Concept Map

Supplies: Whiteboard, Dry-Erase markers

1. Ask the students to break into small groups and encourage them to identify the central word, concept, or question around which to build the map.
2. Start with a circle in the middle of the board and include the main idea within.
3. Extend branches out from the central circle that include all the subtopics from the main idea.
4. Continue to add additional branches with related topics and circle groups of branches that are linked.
5. This mapping encourages students to see the overall picture and helps bring focus away from minute details and back to the main ideas.
6. End with an overall discussion of the topic.



45. Affinity Grouping

This activity can help students break down a topic in order to identify and classify its parts.

1. Student generates ideas about a specific concept and writes each idea on a Post-It.
2. In small groups or one large group (depending on the number of attendees) sort and organize notes into categories on the board or wall to identify common themes.
3. Have students create a heading for each grouping.
4. If using small groups have each group review each other's or have them explain their categories.
5. Make sure students are only writing one idea per Post-It.



46. Vocabulary Scaffolding

Supplies: Class reading

This strategy would work well for midterm or final review

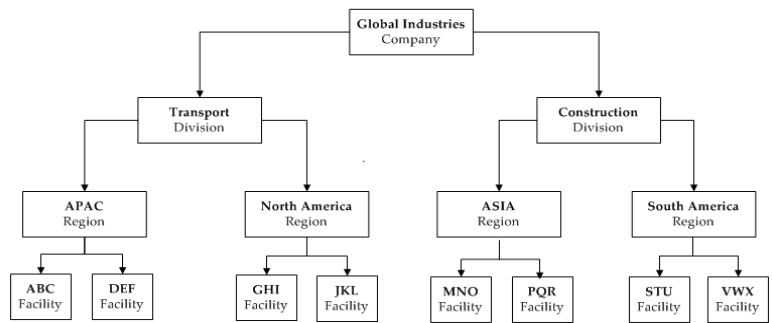
1. From a reading selection, select 15-20 key vocab words that can be sorted in 3 or 4 categories.
2. Select a name for each category, and list each category on the board.
3. Distribute the list of words to the students, and ask them to place the words in the appropriate categories on the grid.
4. Remind students that they must justify the reasons for their choices.
5. For math, you could do concepts or algorithms instead of terms; the categories could possibly be different types of problems that the concepts are needed for.



47. Hierarchies

Forming hierarchies is a method to organize information covered in lecture which utilizes different levels. The levels are based on whether a piece of information fits into a specific group, where higher level groups are more inclusive and lower level groups are exclusive.

Example





48. All the Answers

Supplies: Post-It notes, pens

1. Split your group into two teams.
2. Ask individual students to think of at least three topical questions and answers suitable to pose to the other group.
3. Give out Post-Its to each student and ask them to write down only the answers.
4. The groups then swap their Post-Its and have to work out the question that would match each answer.
5. Give each group enough time to discuss and complete the task, and then encourage the groups to check with the question originator – to encourage discussion about the material.



49. Predict Test Questions

Supplies: Whiteboards, Dry-Erase markers

1. Put students in groups of two or three and ask them to write an exam/test question for a specific topic, ensuring that all topics have been covered.
2. Ask students to write their question on the whiteboard for discussion (using prompts such as - would the lecturer ask this question? what is the answer?)
3. Students will have the benefit of learning to think like the teacher and they'll be able to see additional questions that other students have written.



50. Predict and Prepare

Supplies: Whiteboard, Dry-Erase markers

This technique helps students prepare for new material, especially if it can be connected to information they have just mastered in the session.

1. As a whole group, ask the students to predict the next lecture topic.
2. Facilitate the discussion and perhaps write a summary on the whiteboard of their discussions.
3. Encourage them to: make connections between the last lecture and the next one; and to check D2L regularly for course materials.
4. Use K.W.L to encourage students to come up with questions about the topics that may be asked during lectures.



51. Learning Pairs

Supplies: Paper, pens

This activity will engage students in thinking about the content, encourage them to generate thought-provoking questions and check for understanding.

1. Ask students to develop a list of questions and answers over course material
2. Then sort the students into pairs of two
3. Student A asks the first question and student B answers. Student A offers corrections, clarification, additional info if needed
4. Student B asks next question and student A answers
5. Process continues until all questions are answered
6. Encourage students to ask open ended questions and to vary the types of questions.



52. Steps to Solving Problems

Supplies: Whiteboard, Dry-Erase markers

This is a method of organizing board work in order to facilitate an understanding of problem-solving strategies.

1. The board should be divided into 4 sections: 1- prerequisite knowledge, 2- logical steps, 3- narrative of the steps, and 4- additional sample problem.
2. Encourage one student to fill out section 1 on the board.
3. Encourage two students to simultaneously complete section 2 and 3 on the board.
4. Have another student complete the 4th section.



53. Two Lies and a Truth

Supplies: None

1. The leader prepares two false statements about a topic, and one true statement.
2. These statements are then read aloud to the students, and they are asked to identify the true statement.
3. These statements are then read aloud to the students, and they are asked to identify the true statement.
4. The false statements are then discussed to determine why they are false, and how they could be made true.



54. Paired Problem-Solving

Supplies: None

This strategy requires students to verbalize what they are thinking about as they read a passage or solve a problem.

1. Pair the students into groups, one student should be the thinker/problem solver while the other student is the listener.
2. The thinker must vocalize every step in the reasoning process and the listener must listen and understand every step the thinker is making. The pair should be working together.
3. Ensure the listener continually encourages the thinker to vocalize. The listener should also point out any errors.
4. After the problem is solved, the groups should rejoin the large group and share the problem-solving process with the group.



55. Presenting Scenarios

Supplies: Paper, pens, whiteboard, Dry-Erase markers

1. Establish what lecture topic the students are working on, and identify several issues or gaps in understanding.
2. Select several problems from the lecture topic you know your students are working on.
3. Divide the students into clusters.
4. Give each group a problem and ask them to write out the solution, using a textbook and/ or class notes, on the whiteboard.
5. Ask each group to stand up and explain the problem in as much detail as they can.
6. Ask them to show their thought processes and methods used in finding the solution.
7. Get the whole group to concur, and any unresolved questions could be homework for your next session, or encourage the students to go back to their lecturer to clarify.



56. Make/Take Practice Quiz

Supplies: None

1. Divide the students into two or more groups.
2. Instruct each group to make a practice quiz for another group and provide answers to their own quiz on a separate piece of paper.
3. Be sure to provide examples but allow them to be creative.
4. Ask the groups to exchange quizzes and give them time to complete the other group's quiz.
5. Have each group compare their answers with the answers that the other group previously composed.
6. Be sure to allow for time to discuss questions that remain unclear.



57. Reciprocal Questioning

This strategy improves students' questioning and reasoning skills by encouraging them to consider the quality and type of question.

1. The leader prepares 10-12 varied questions over an important lecture or section of text.
2. Once at the session, ask the students to read or review the assigned material to understand it 100%.
3. Then, allow them to ask you questions. If students' questions extend beyond the reading, model your thinking process for them.
4. After students have finished asking their questions, begin by asking them questions directly from the text or lecture.
5. Move onto higher-order questions.
6. Lead a discussion concerning what type of questions were asked. What are the similarities and differences between the students' and leader's questions?



58. Structured Problem Solving

1. Identify the steps in solving the particular problem, and separate the students into groups.
2. Because the steps for solving the problem are given, it is easier for the students to handle large, complex problems since they have greater confidence.
3. Assign them a sample problem and give them a specific period of time, at the end of which the group must have reached a consensus for the answer.
4. Ask the students to report their solution and explain the steps that led to their answer. This strategy is most helpful for larger multi-step problems.



59. Super Tic-Tac-Toe

Supplies: Whiteboard, Dry-Erase markers

1. The group is divided into two teams: A and B.
2. Draw a 3x4 grid on the board. Put a post-it note on each square with a problem written on the back, in each square.
3. Team A selects a teammate to be the first scribe for their team (a new scribe is chosen for each turn). The scribe can only write what their team tells them to write. The team tells the scribe which square to choose.
4. The scribe writes the problem on the board and the team directs him what to write to solve the problem. Meanwhile, Team B is watching and can challenge Team A if it sees an error or if the scribe has written something they were not told or before their team told them to write it.
5. If the problem was correct, Team A gets an X or O for the square. If the opposing team notices an error, it steals the square. Repeat the same process for the other team.
6. When a team gets 3 squares in a row, it gets a point. This keeps going until all the problems are completed.



60. First Line Only

1. Present a variety of types of problems so the student builds confidence in addressing the first level of the problem.
 2. You will need to give a strict time limit so that only the first step towards the solution is addressed.
- e.g. for Calculus. *Examine the problems below and tell me how you would begin the solution to each one:*

1. $\lim_{x \rightarrow 0^+} (\sin x)^x$

2. $\lim_{x \rightarrow 0} \frac{(\sin x)}{x}$

You may want to follow this exercise with a matrix or board work model that assists them in further categorizing how to solve problems.



61. Pass the Problem

This strategy can work in pairs or individually depending on size of group. It works well as a technique to check for understanding after a new concept has been taught in class.

1. Generate a list of problems and assign each student a different problem.
2. Have students complete Step 1 of their assigned problem.
3. After a minute have them pass their problem to the student on their right and have them complete Step 2.
4. Continue process until all steps are complete.



62. Group Survey

1. Each attendee is surveyed to discover their position on an issue, problem or topic. This process ensures that each member of the group is allowed to offer their point of view.
2. A survey works best when opinions or views are briefly stated. Be sure to keep track of the results of the survey.



63. Relay

Supplies: Whiteboards, Dry-Erase markers

1. Set up groups of 2-3.
2. Have students solve one step of a problem, then hand off the marker to the next person.
3. The teams will race to see which can finish first.



64. Find the Error

1. Set up small groups.
2. Have students solve one step of a problem, then hand off the marker to the next person.
3. The teams will race to see which can finish first.



65. Problem-Solving Organizer

1. Put students in pairs.
2. Set up board into organized sections: Problem | What is given? | What is needed? | Steps | Solution
3. Write as many problems as there are pairs, and assign one to each.
4. After an allotted amount of time, have each pair come up and present each section of their problem.



66. Speed Dating

1. Give a list of questions or prompts.
2. Pair up students.
3. Allow 3-minute rounds to share their responses, with their “date” giving feedback.
4. After the 3 minutes, one person of each pair stays in place while the others move on down the line.



67. Generative Knowledge Interviewing

1. Have students write two or more stories related to a specific area of inquiry.
2. Have students share with one or two partners, taking turns.
3. Partners interview the storyteller to learn more and identify patterns.
4. Partners reflect back to the storyteller what they learned, and write a summary statement about their reflections to give to the storyteller.



68. Identify the Big Idea

Supplies: Whiteboard, Dry-Erase markers

Students often feel overwhelmed by the sheer volume of information they have to deal with and this technique can help them identify and organize the information presented.

1. Ask each student to explain what they thought was the most important concept they learned during a particular lecture or session.
 - For example, ask - “If you take one thing from the information presented, what would it be?”
2. Ask each student to offer a different takeaway.



69. Pre and Post Quiz

Supplies: Prepared questions/answers, Paper or pre-made poll/google form

Pre-quiz

- Assess students' understanding of a critical concept related to the previous lecture that will be covered on the exam.
- Provide a question and have all students submit their answers via paper, online poll, or google form. Ensure that responses are anonymous and will help students gauge where they may be struggling and how the leader can assist them during the session.
- Predict what students will struggle with in the pre-quiz; create a lesson that guides students' efforts to practice and apply these concepts

Post-quiz

- Check for students' understanding of the pre-quiz concept by quizzing them with a similar question and have all students submit their answers similarly to the pre-quiz.
- Check responses to see if most students gained understanding after the session. Group students together to discuss where they struggled and provide relevant study strategies.



70. Lecture-Notes Review

Supplies: Lecture notes

This is a method of getting the students to work together to review and compile their lecture notes in an organized way.

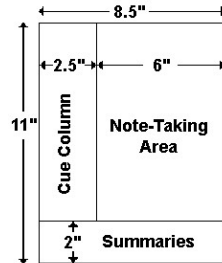
1. In small groups, ask the students to take turns reading aloud a section of their notes.
2. Encourage other students to interject with details missed or questions about the topic. Give students time to add information to their notes between turns.
3. Follow up with a short discussion in which students share what note-taking strategies they find effective.
4. Suggest that when students take notes during lecture they include “SI questions” in the margin to discuss in the next SI session.



71. Cornell Note-Taking System

Supplies: Loose-leaf paper, Cornell note-taking template

1. Ask students to take notes using this format during next lecture then use the Lecture-Notes Review Strategy in your next session to ensure all students have the same important information in their notes.
 - Note-Taking Area: Write notes during lecture; skip a line between ideas and topics; don't use complete sentences; abbreviate; use symbols
 - Cue Column: Review notes ASAP after class; write main ideas, key points, dates, and people
 - Summaries: Write 1-2 sentences highlighting main points from this notes page





72. Textbook-Notes Review

Supplies: Ask students to bring notes they have made from a particular reading

This method encourages students to work together to review and compile their notes in an organized way.

1. In small groups, ask the students to take turns in reading aloud and discussing a section of their notes. Alternatively, working in pairs, ask students to jot down guidelines for how they currently make notes from texts.
2. In a large group, discuss the following specific to your course:
 - Why read the chapter?
 - What are your goals for reading the chapter?
 - Why take notes?
 - What do you do with your notes?



73. Reading Groups

Supplies: Piece of course reading, flip chart paper, markers, pens

1. Ask students to work in groups of 2-4 to make an outline using the headings, or take one paragraph each to determine the main content, from an important chapter or a given text.
2. Point out that the size and the placement of the headings are important for determining the main ideas and supporting details.
3. After you have a “skeleton” outline of the chapter, ask the students to clarify the important points under each heading.
4. If the students have trouble clarifying the important points, suggest they turn the headings into questions and then read to find the answers.
5. **Who, what, why, when, where, and how** are good questions with which to begin. Ask the groups to compare their work with other groups.



74. Reading Made Easy!

Supplies: Whiteboard, Dry-Erase markers

This strategy is designed to conquer a difficult reading assignment.

1. Ask students to bring a reading they are working on.
2. The assignment should be divided up into meaningful sections and each student (or group) should be assigned one section.
3. Ask the students to read and summarize their section.
4. After they all have read the material, ask each student to read aloud their summary.
5. Encourage students to ask questions and be prepared to emphasize areas students may have overlooked.
6. Discuss the article as a whole.

You could also nominate a student to concept map the discussion on the board as the students summarize.



75. Interpreting Feedback

Supplies: Piece of marked work and the feedback received from the lecturer

1. Put students in groups of two or three and ask them to read aloud their own feedback form received from the professor.
2. Suggest they have a constructive discussion about each point that is being made and that they write notes and action points to learn from the experience.
3. You could follow this activity with a brief discussion as a whole group about what the main benefits were of completing this activity.
4. If any uncertainties arise, encourage and support the students to feed this forwards to the lecturer for clarification.



76. Peer Feedback

Preparation: Ask students to bring in a piece of work/writing to the session

1. Put students in groups of 2-3 and ask them to exchange and read through each other's work in progress.
2. Suggest they have a constructive discussion about each other's work, looking at particular issues such as:
 - Writing style (expression)
 - Grammar, spelling, and punctuation
 - Content (the main concepts being covered)
3. Follow this activity with a discussion as a group about what the main benefits were of completing this activity .
4. Ensure you clarify that sharing small samples of work can be useful, but copying others' work is considered seriously as academic misconduct.



77. Marking the Textbook

1. Put students in pairs.
2. Ask them to jot down guidelines for how they currently mark their book.
3. In a large group, discuss the following specific to your course:
 - Why read the chapter?
 - What are your goals for reading the chapter?
 - Why mark the text?
 - What do you do with your markings?
4. Discuss the pertinent marking textbook suggestions.
5. Pick a chapter from their text and have them read a few pages and apply the suggestions.
6. Have the students compare their markings.



78. Setting S.M.A.R.T Goals

Help your students plan for the quarter by setting goals for the course. Check in periodically for progress.

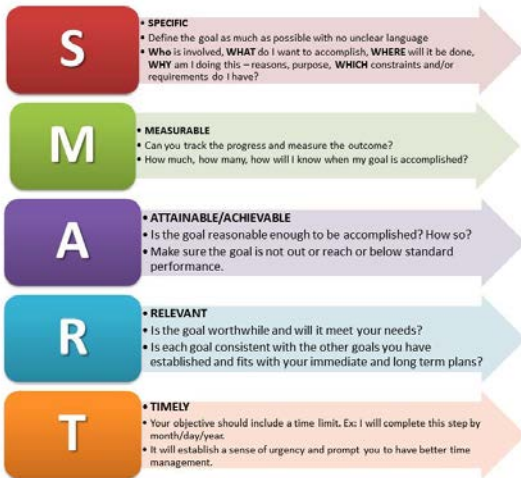


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