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# *Active* **Learning**

*101 Strategies to Teach Any Subject*

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CIP

## REINFORCING THE LECTURE

9. **Application problem:** Pose a problem or question for students to solve based on the information given in the lecture.
10. **Student review:** Ask students to review the contents of the lecture with each other, or give them a self-scoring review test.

## Ten Strategies to Form Learning Groups

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*Small-group work is a significant part of active learning. It's important to form groups quickly and efficiently and, at the same time, to vary the composition and sometimes the size of the groups throughout the class. The following options are interesting alternatives to letting students choose their own groups or counting off up to a number you have designated.*

1. **Grouping cards:** Determine how many students are in the class and how many different groupings you want throughout the session. For example, in a class of twenty, one activity may call for four groups of five; another for five groups of four; still another for six groups of three with two observers. Code these groups using colored dots (red, blue, green, and yellow for four groups), decorative stickers (five different stickers on a common theme for five groups—for example, lions, monkeys, tigers, giraffes, elephants), and a number (1 through 6 for six groups). Randomly place a number, colored dot, and sticker on a card for each student and include the card in the student's materials. When you are ready to form your groups, identify the code you are using and direct the students to join their group in a designated place. Students will be able to move quickly to their groups, saving time and eliminating confusion. To make the process even more efficient, you may want to post signs indicating group meeting areas.
2. **Puzzles:** Purchase children's jigsaw puzzles or create your own by cutting out pictures from magazines; pasting them on cardboard; and cutting them into the desired shape, size, and number. Select the number of puzzles according to the number of groups you want to create. Separate the puzzles, mix up the pieces, and give each

student a puzzle piece. When you are ready to form your groups, instruct students to locate those with the other pieces needed to complete a puzzle.

3. **Finding famous fictional friends and families:** Create a list of famous fictional family members or friends in groups of three or four (e.g., Peter Pan, Tinker Bell, Captain Hook, Wendy; Alice, Cheshire Cat, Queen of Hearts, Mad Hatter; Superman, Lois Lane, Jimmy Olsen, Clark Kent). Choose the same number of fictional characters as there are students. Write the fictional names on index cards, one on each card, to create a family group of cards. Shuffle the cards and give each student a card with a fictional name. When you are ready to form groups, ask the students to find the other members of their "family." Once the famous group is complete, they can find a spot to congregate.
4. **Name tags:** Use name tags of different shapes and/or colors to designate different groupings.
5. **Birthdays:** Ask students to line up by birthdays, then break into the number of groups you need for a particular activity. In large classes, form groups by birth months. For example, 60 students can be divided into three groups of roughly equal size by composing groups of those born in (1) January, February, March, and April; (2) May, June, July, and August; and (3) September, October, November, and December.
6. **Playing cards:** Use a deck of playing cards to designate groups. For example, use jacks, queens, kings, and aces to create four groups of four, and add additional number cards depending on the number of students. Shuffle the cards and deal one to each student. Then direct students to locate others of their kind to form a group.
7. **Draw numbers:** Determine the number and size of the groups you want to create, put numbers on individual slips of paper, and place them in a box. Students draw a number from the box to indicate the group to which they belong. For example, if you want four groups of four, you would have sixteen slips of paper with four each of the numbers 1 through 4.
8. **Candy flavors:** Give students each a wrapped piece of sugarless hard candy of various flavors to indicate groupings. For example, your four groups might be lemon, butterscotch, cherry, and mint.

9. **Choose like items:** Select toys on a common theme and use them to indicate groups. For example, you might choose transportation and use cars, airplanes, boats, trains. Each student would “draw” a toy from a box and locate others with the same toy to form a group.
10. **Student materials:** You can code student learning materials using colored paper clips, colored handouts, or stickers on folders to predetermine groupings.

## Ten Alternatives in Selecting Group Leaders and Filling Other Jobs

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*One way to facilitate active learning in small groups is to assign jobs to some of the group members such as **leader, facilitator, time-keeper, recorder, spokesperson, process observer, or materials manager**. Often, you can simply ask for volunteers to assume some of these responsibilities. But sometimes it's fun and efficient to use a creative selection strategy.*

1. **Alphabetical assignment:** Identify the jobs needed and assign them in alphabetical order by first name. In a long-term group, rotate jobs using this order.
2. **Birthday assignment:** Make assignments in chronological order by students' birthdays (in the calendar year). In a long-term group, rotate jobs using this order.
3. **Number lottery:** Ask group members to count off. Place the numbers held by group members in a hat and pick the person for each job.
4. **Color lottery:** Select a color for each assignment. The person who is wearing something with a certain color receives that assignment.
5. **Clothing article:** Assign responsibilities by selecting corresponding articles of clothing, such as *eyeglasses, silver jewelry, a sweater, or brown shoes*.

# 3

## *How to Help Students Acquire Knowledge, Skills, and Attitudes . . . Actively*

If the strategies presented in the previous section were the “appetizers” for active learning, the ones you will soon be introduced to are the “entrées.” Education at all levels is about acquiring *knowledge, skills, and attitudes*. Cognitive learning (knowledge) includes the gaining of information and concepts. It deals not only with comprehending the subject matter but also with analyzing and applying it to new situations. Behavioral learning (skills) includes the development of competence in students’ ability to perform tasks, solve problems, and express themselves. Affective learning (attitudes) involves the examination and clarification of feelings and preferences. Students are involved in assessing themselves and their personal relationship to the subject matter. How knowledge, skills, and attitudes are acquired makes all the difference in the world. Will it be done passively or actively?

Active learning of information, skills, and attitudes occurs through a process of inquiry. Students are in a *searching* mode rather than a *reactive* one. That is, they are looking for answers to questions either posed *to* them or posed *by* them. They are seeking solutions to problems teachers have challenged them to solve. They are interested in obtaining information or skills to complete tasks assigned to them. And they are confronted with issues that compel them to examine what they believe and value. All this occurs when students are engaged in tasks and activities that gently push them to think, do, and feel. You can create these kinds of activities using the many strategies you will find in this section.

This section is divided into several parts:

### **FULL-CLASS LEARNING**

This part deals with ways to make teacher-led instruction more interactive. You will find strategies for presenting information and ideas that engage students mentally.

### **STIMULATING DISCUSSION**

This part explores ways to intensify dialogue and debate of key issues in your subject matter. You will find strategies that encourage active, widespread student participation.

### **PROMPTING QUESTIONS**

This part examines ways to help students become willing to ask questions. You will find strategies that enable students to formulate pointed questions that clarify what you have taught them.

### **COLLABORATIVE LEARNING**

This part presents ways to design learning tasks done in small groups of students. You will find strategies that foster student cooperation and interdependence.

### **PEER TEACHING**

This part discusses ways to enable students to teach each other. You will find strategies that enable students to be co-collaborators in the teaching-learning process.

### **INDEPENDENT LEARNING**

This part relates to learning activities performed by students individually and privately. You will find strategies to promote student responsibility for directing their own learning.

### **AFFECTIVE LEARNING**

This part pertains to students examining their feelings, values, and attitudes. You will find strategies to facilitate self-understanding and values clarification.



**SKILL DEVELOPMENT**

This part deals with learning and practicing skills—both technical and nontechnical. You will find strategies to expedite initial skill development and further practice.

# 25

## Listening Teams

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### OVERVIEW

*This activity is a way to help students stay focused and alert during a lecture-based lesson. Listening teams create small groups responsible for clarifying the class material.*

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### PROCEDURE

1. Divide the students into four teams, and give the teams these assignments:

<i>Team</i>	<i>Role</i>	<i>Assignment</i>
1	Questioners	After the lecture-based lesson, ask at least two questions about the material covered.
2	Agreers	After the lecture-based lesson, tell which points they agreed with (or found helpful) and explain why.
3	Nay-sayers	After the lecture-based lesson, comment on which point they disagreed with (or found unhelpful) and explain why.
4	Example givers	After the lecture-based lesson, give specific examples or applications of the material.

2. Present your lecture-based lesson. After it is over, give teams a few moments to complete their assignments.
3. Call on each team to question, to agree, and so forth. You should obtain more student participation than you ever imagined.

### VARIATIONS

1. Create other roles. For example, ask a team to summarize the lecture-based lesson, or ask a team to create questions that test students' understanding of the material.
2. Give out questions in advance that will be answered in the lecture-based lesson. Challenge students to listen for the answers. The team that can answer the most questions wins.

# 26

## Guided Note Taking

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### OVERVIEW

*In this popular technique, you provide a prepared form that prompts students to take notes while you are teaching. Even a minimal gesture like this engages students more than if already completed instructional handouts are provided. There are a variety of methods to do guided note-taking. The simplest one involves filling in the blanks.*

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### PROCEDURE

1. Prepare a handout that summarizes the major points of a lecture-based lesson you are about to give.
2. Instead of providing a complete text, leave portions of it blank.
3. Some ways to do this include:

- Provide a series of terms and their definitions; leave either the terms or their definitions blank.

\_\_\_\_\_ : a five-sided figure

Octagon: \_\_\_\_\_

- Leave one or more of a series of points blank.

#### ***The Roles of the Roman Senate***

- Administer the laws and decrees enacted by the consuls.

- \_\_\_\_\_

- Receive foreign ambassadors.

- \_\_\_\_\_

- Leave key words in a short paragraph blank.

*Today, managers often face problems such as low \_\_\_\_\_, high \_\_\_\_\_, and \_\_\_\_\_ quality of service. Traditional management solutions, often tend, like the \_\_\_\_\_, to generate \_\_\_\_\_ new problems for every one solved.*

# 34

## Active Debate

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### OVERVIEW

*A debate can be a valuable method for promoting thinking and reflection, especially if students are expected to take a position that may be contrary to their own. This is a strategy for a debate that actively involves every student in the class—not just the debaters.*

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### PROCEDURE

1. Develop a statement that takes a position with regard to a controversial issue relating to your subject matter (e.g., “The media creates news rather than reports it.”).
2. Divide the class into two debating teams. Assign (arbitrarily) the “pro” position to one group and the “con” position to the other.
3. Next, create two to four subgroupings within each debating team. In a class of 24 students, for example, you might create three pro subgroups and three con subgroups, each containing four members. Ask each subgroup to develop arguments for its assigned position, or provide an extensive list of arguments they might discuss and select. At the end of their discussion, have the subgroup select a spokesperson.
4. Set up two to four chairs (depending on the number of subgroups created for each side) for the spokespersons of the pro side and, facing them, the same number of chairs for the spokespersons of the con side. Place the remaining students behind their debate team. For the preceding example, the arrangement will look like this:

x				x
x				x
x				x
x	pro		con	x
x	pro		con	x
x	pro		con	x
x				x
x				x
x				x

Begin the “debate” by having the spokespersons present their views. Refer to this process as “opening arguments.”

5. After everyone has heard the opening arguments, stop the debate and reconvene the original subgroups. Ask the subgroups to strategize how to counter the opening arguments of the opposing side. Again, have each subgroup select a spokesperson, preferably a new person.
6. Resume the "debate." Have the spokespersons, seated across from each other, give "counterarguments." As the debate continues (be sure to alternate between the two sides), encourage other students to pass notes to their debaters with suggested arguments or rebuttals. Also, urge them to cheer or applaud the arguments of their debate team representatives.
7. When you think it appropriate, end the debate. Instead of declaring a winner, reconvene the entire class in a single circle. Be sure to integrate the class by having students sit next to people who were on opposite sides. Hold a classwide discussion on what students learned about the issue from the debate experience. Also, ask students to identify what they thought were the best arguments raised on both sides.

#### **VARIATIONS**

1. Add one or more empty chairs to the debate teams. Allow students to occupy these empty chairs whenever they want to join the debate.
2. Start the activity immediately with the opening arguments of the debate. Proceed with a conventional debate, but frequently rotate the debaters.

# 36

## Three-Stage Fishbowl Decision

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### OVERVIEW

*A fishbowl is a discussion format in which a portion of the class forms a discussion circle and the remaining students form a listening circle around the discussion group (see "Ten Methods to Obtain Participation at Any Time," page 00). Following is one of the more interesting ways to set up a fishbowl discussion.*

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### PROCEDURE

1. Devise three questions for discussion relevant to your subject matter. In a class on ecology, for example, the questions might be:
  - *How is the environment being endangered?*
  - *What steps can the government and private industry take to deal with the problem?*
  - *What can we do personally?*

Ideally, the questions should be interrelated, but that is not required. Decide in what order you would like the questions discussed.

2. Set up chairs in a fishbowl configuration (two concentric circles). Have the students count off by 1, 2, and 3. Ask the members of group 1 to occupy the discussion-circle seats and ask the members of groups 2 and 3 to sit in the outer-circle seats. Pose your first question for discussion. Allow up to 10 minutes for discussion. Invite one student to facilitate the discussion or act as the facilitator yourself.
3. Next, invite the members of group 2 to sit in the inner circle, replacing group 1 members who now sit in the outer circle. Ask the members of group 2 if they would like to make any brief comments about the first discussion, and then segue into the second discussion topic.
4. Follow the same procedure with members of group 3.
5. When all three questions have been discussed, reconvene the class as one discussion group. Ask them for their reflections about the entire discussion.

### VARIATIONS

1. If it is not possible to have circles of chairs, have a rotating panel discussion instead. One-third of the class become panelists for each discussion question. The

panelists can sit in front of the classroom facing the remainder of the class. If you are using a U-shaped classroom arrangement or a conference table (see "Ten Layouts for Setting Up a Classroom," page 9), designate a side of the table as a panel group.

2. Use only one discussion question rather than three. Invite each subsequent group to respond to the discussion of the preceding group.

# 46

## Card Sort

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### OVERVIEW

*This is a collaborative activity that can be used to teach concepts, classification characteristics, facts about objects, or review information. The physical movement featured can help to energize a tired class.*

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### PROCEDURE

1. Give each student an index card containing information or an example that fits into one or more categories. Here are some examples:
  - Types of deciduous trees vs. types of evergreens
  - Characters in various Shakespearean plays
  - Powers of the executive, legislative, and judicial branches of government
  - Symptoms of different illnesses
  - Information that fits into varied parts of a job résumé
  - The characteristics of different metals
  - Nouns, verbs, adverbs, prepositions
  - Books by Dickens, Faulkner, Hemingway, and Updike
2. Ask students to mill around the room and find others whose card fits the same category. (You may announce the categories beforehand or let students discover them.)
3. Have students with cards in the same category present themselves to the rest of the class.
4. As each category is presented, make any teaching points you think are important.

### VARIATIONS

1. Ask each group to make a teaching presentation about its category.
2. At the beginning of the activity, form teams. Give each team a complete set of cards. Be sure they are shuffled so that the categories into which they are to be sorted are not obvious. Ask each team to sort the cards into categories. Each team can obtain a score for the number of cards sorted correctly.



# 53

## Peer Lessons

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### OVERVIEW

*This is a strategy to promote peer teaching in the classroom that places the entire responsibility for teaching fellow students on class members.*

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### PROCEDURE

1. Divide the class into subgroups. Create as many subgroups as you have topics to be taught.
2. Give each group some information, a concept, or a skill to teach others. Here are some examples of topics:

- The structure of an effective paragraph
- Psychological defense mechanisms
- Solving a math puzzle
- The spread of AIDS

The topics you provide to your students should be interrelated.

3. Ask each group to design a way to present or teach its topic to the rest of the class. Advise them to avoid lecturing or reading a report. Urge them to make the learning experience for students as active as possible.
4. Make some of the following suggestions:
  - Provide visual aids.
  - Develop a demonstration skit (where appropriate).
  - Use examples and/or analogies to make teaching points.
  - Involve students through discussion, quiz games, writing tasks, role playing, mental imagery, or case study.
  - Allow for questions.

For example, a teacher assigns a sociology class to develop classroom presentations on four major issues of *aging*. Four subgroups are formed and choose the following formats for peer teaching:

- *The Aging Process*: A true/false quiz game on facts of aging
- *Physical Aspects of Aging*: A simulation of typical aspects of aging (e.g., arthritis, decreased hearing, blurred vision)
- *Stereotypes of Aging*: A writing task in which class members write about society's perceptions of the elderly

### **3 How to Help Students Acquire Knowledge, Skills, and Attitudes**

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- *Loss of Independence*: A role play exercise involving an adult child discussing issues of transition with his or her parent

You might also select some methods from *Active Learning* as teaching strategies.

5. Allow sufficient time for planning and preparation (either in class or outside class). Then, have each group present their lessons. Applaud their efforts.

#### **VARIATIONS**

1. Instead of group teaching, have students teach or tutor others individually or in small groups.
2. Allow groups to give the class a prereading assignment before their lessons.

# 54

## Student-Created Case Studies

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### OVERVIEW

*Case study is widely heralded as one of the best learning methods. A typical case discussion focuses on the issues involved in a concrete situation or example, the action that should be taken and the lessons that can be learned, and the ways of handling or avoiding such situations in the future. The technique that follows allows students to create their own case studies.*

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### PROCEDURE

1. Divide the class into pairs or trio. Invite them to develop a case study that the remainder of the class could analyze and discuss.
2. Indicate that the purpose of a case study is to learn about a topic by examining a concrete situation or example that reflects that topic. Following are some examples:
  - A haiku poem can be written to show how it's done.
  - An actual résumé can be analyzed to study how to write a résumé.
  - An account of how someone conducted a scientific experiment can be discussed to learn about scientific procedures.
  - A dialogue between a manager and an employee can be examined to learn how to provide positive reinforcement.
  - The steps taken by a parent in a conflict situation with a child can be studied to learn about behavior management.
3. Provide adequate time for the pairs or trios to develop a short case situation or example that poses an example or issue to be discussed or a problem to be solved that is relevant to the subject matter of the class.

*In a class on twentieth-century U.S. history, for example, the teacher might select three different historical events in which the United States intervened overseas and assign one to each pair of students so that each may develop a case study to review American foreign policy.*

*These are:*

1. *Bay of Pigs invasion*
2. *Intervention of troops in Vietnam*
3. *Assignment of troops to Somalia*

*Each pair then writes a summary case study specifically detailing the events that led to the decision to send U.S. troops overseas. Questions for analysis are:*

- *What were the primary reasons for U.S. intervention?*
  - *How well informed was the U.S. public about the decision?*
  - *Who made the decision?*
  - *What precedents were set for U.S. foreign policy?*
4. When the case studies are complete, have the groups present them to the class. Allow a member of the group to lead the case discussion.

### **VARIATIONS**

1. Obtain a small number of volunteers who prepare case studies in advance for the rest of the class. (The preparation of a case study is an excellent learning assignment.)
2. Create an even number of groups. Pair up groups and have them exchange case studies.

# 61

## Learning Journals

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### OVERVIEW

*When students are asked to reflect in writing about the learning experiences they have undergone, they are encouraged to become conscious, through language, of what is happening to them. A widely used technique in this regard is a learning journal, a reflective log or diary students keep over time.*

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### PROCEDURE

1. Explain to students that experience is not necessarily the best teacher and that it is important to reflect on experiences to become conscious of what those experiences have taught them.
2. Invite students (or require them, if appropriate) to keep a journal of their reflections and learnings.
3. Suggest that they write, twice a week, some of their thoughts and feelings about what they are learning. Tell them to record these comments as a personal diary (without worrying about spelling, grammar, and punctuation).
4. Ask students to focus on some or all of the following categories:
  - What's been **unclear** to them or what they **disagree** with
  - How the learning experiences **connect** with their personal lives
  - How the learning experiences are **reflected** in other things they read, see, or do
  - What they have **observed** about themselves or others since the learning experiences
  - What they **concluded** from the learning experiences
  - What they would like to **do** as a result of the learning experiences
5. Collect, read, and comment on the journals periodically so that students are held accountable for keeping them and so that you can receive feedback about their learnings.

### VARIATIONS

1. Instead of a blank notebook, a structured form can be provided on which students can organize their journal entries.
2. Ask students to write during class time rather than after class.

# 83

## Jeopardy Review

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### OVERVIEW

*This strategy is designed like the popular TV game show—answers are given, and the challenge is to come up with the correct question. The format can easily be used as a review of course material.*

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### PROCEDURE

1. Create three to six categories of review questions. Use any of the following generic categories:
  - Concepts or Ideas
  - Facts
  - Skills
  - Names

Or create categories by topic. For example, a course on French might involve topics such as *months*, *numbers*, and *colors*.

2. Develop at least three answers (and their corresponding questions) per category. For example, the answer “This color wine is usually served at room temperature” can be matched to the question “What is **rouge**?” You don’t need to have the same number of questions and answers in each category, but you should develop questions and answers of increasing difficulty.
3. Show a Jeopardy game board on a piece of large paper. Announce the categories and the point values for each category. Following is a sample game board:

<i>Months</i>	<i>Colors</i>	<i>Numbers</i>
10 points	10 points	10 points
20 points	20 points	20 points
30 points	30 points	30 points

4. Form teams of three to six students and provide a responder card for each team. If possible, create groups with a range of skill or knowledge levels.
5. Ask teams to choose a team captain and team scorekeeper.
  - **Team captains** represent the team. They are the only ones who can hold up the responder card and give an answer. **Team captains must confer with the team before giving an answer.**
  - **Scorekeepers** are responsible for adding and subtracting points for their team.

# 86

## Bingo Review

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### OVERVIEW

*This strategy helps to reinforce terms that students have learned in a course of study. It uses the format of a Bingo game.*

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### PROCEDURE

1. Develop a set of 24 or 25 questions about your subject matter that can be answered by a standard term used in your course of study. Here are some example terms:
  - least common denominator
  - hieroglyphics
  - inflation
  - autocracy
  - database
  - Hammurabi code
  - byte
  - latitude
  - impressionism
  - allegory
  - photosynthesis
  - ordinal number
  - schizophrenia
  - subjunctive clause

You can also use names instead of terms. Here are some examples:

- Freud
  - Caesar
  - Blake
  - Roosevelt
  - Marco Polo
  - Joan of Arc
  - Dewey
  - Copernicus
  - Pasteur
  - Van Gogh
  - Curie
  - Chaucer
  - Russell
  - Ailey
2. Sort the questions into five piles. Label each pile with the letters B-I-N-G-O. Create Bingo cards for each student. These should be exactly like traditional Bingo cards, with numbers in each of the 24 cells in the  $5 \times 5$  matrix (the middle cell is "Free.")
  3. Read a question with an associated number. If a student has the number and can correctly write in the answer, he or she can fill in the cell.
  4. Whenever a student achieves five correct answers in a row (either vertically, horizontally, or diagonally), the student may call out "Bingo." Play may continue until all 25 cells are filled.