# A SAMPLE OF INNOVATIVE TEACHING TECHNIQUES 

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## Categories of Sample Teaching Techniques

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b) Field Trip
c) Guest Speaker

## Critical Thinking

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b) Debate
c) Panel

## Experiential (emotional/affective)

a) Drawing
b) Simulated TV Show
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## Problem Solving/Analysis

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## Skill Training

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Self-directed Learning
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b) Internship

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Logical-Mathematical Techniques
a) Classifications and Categorizations

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Intrapersonal Techniques
a) One-Minute Reflection Periods

## Base Groups

With this technique, students are formed into groups of four or five and meet at the beginning of each class. The focus of the meeting can be the previous lecture, the homework, assigned readings or assignments. The groups can discuss the problems they encountered and work together to solve these problems. They can also discuss issues they had with the previous lecture or assigned readings. As the instructor, you can either circulate to discover what they are discussing or have them rejoin the large group after 15 minutes or so and report what they discussed.

## Board Games

Board games ar a fun way for students to learn in the context of an informal social setting. On the one leve, students are chatting, discussing rules, throwing dice, and laughing. On another level, however, they are engaged in learning whatever skill or subject happens to be the focus of the game. Board games can be easily made using manila file folders, magic markers (to create the typical winding road or path), a pair of dice, and miniature cars, people, or coloured cubes to serve as game pieces. Topics can include a wide range of subjects, from math facts to science and history data. You can also design board games that involve quick open-ended or activity-oriented tasks.

## Brainstorming

During brainstorming, students verbalize whatever comes into their minds around a particular topic. Brainstorming can be about anything. The general rules for brainstorming are: share whatever comes to mind that is relevant, no judgement of any idea, and every idea counts. You can place ideas at random on the board, or use a special system (such as an outline or a mind-map) for organizing them. After everyone has had a chance to share, look for patterns or groupings in the ideas, invite students to reflect on the ideas, or use the ideas towards a specific end. The strategy allows all students who have an idea to be given acknowledgement for their original thoughts. Brainstorming is an excellent way to begin problem-solving or just to get people thinking about a particular topic and what it means to them.

## Buzz Group

This is a longer and larger version of the diad or triad technique. Following a lecture or other formal presentation, break the total group into smaller groups of four to six to discuss an assigned question or issue for ten to fifteen minutes. Ask each group to select a recorder who reports the results to the whole group.

## Case Study

When it is difficult to do the real thing, because of time, money, or other reasons, a case study can be a reasonable alternative. You present a problem situation to a small gorup for them to analyze and solve. The case study approach usually emphasizes a process for analysis, rather than for teaching specific information. Try to obtain existing case studies or develop your own case study from real life situations (disguise the names and descriptions of people and places when doing this). Occasionally stories in newspapers or magazines can be developed into case studies. When developing case studies, concentrate on the facts, try to make the situation as real as possible whith conversations between people, descriptions of events, and so on. The entire case study can be a creation with no direct tie to a real situation, but it must appear realistic. Select or create case studies that fit the backgrounds and experience of participants as well as fit the learning objectives. Explain to the group that careful analysis must precede the selection of solutions. Provide specific questions at the end of the case to direct the group members. Give participants a specific time (that is realistic for them to work within) for working on the case study. Ask each group to present to the total group its analysis and solution to the case situation. Lead a group discussion about the problem solving process, the difficulties the groups experienced with the case study, and what they gained from the activity.

## Classifications and Categorizations

This technique allows data to be categorized in a visual manner. Students can brainstorm to categorize items into logical frameworks using a variety of techniques: time lines, attribute webs (listing attributes of a person, place, or thing as spokes around the subject), 5 W organizers (diagrams that answer who, what, when, where, and why), and mind-maps. Most of these frameworks are also spatial in nature. The value of this approach is that disparate fragments of information can be organized around central ideas or themes, making them easier to remember, discuss and think about.

## Debate

This is effective when you want to help students clearly see two sides to an issue or question. Randomly, divide the entire class into groups of three to five students. Assign position A or position B to each group so that you have an even number of groups advocating each position. Assign a position on a question or issue to groups A and B (if you have more than two groups, some groups will hold the same position). Ask the groups to make as strong a case as they can for their positions, give them about 15 minutes to do this. Ask the first group to present its position taking no longer than 5 minutes. Alert one of the opposing groups; to be prepared to rebut. After the first group gives its presentation, the rebuttal group has three minutes to develop its rebuttal. The rebuttal group presents its rebuttal for no more than two minutes. Repeat so that all groups have an opportunity to make both their primary presentations as well as rebuttals. Discuss what was learned from the exercise when the presentations and rebuttals are completed. Debate works best for groups of ten to thirty.

## Demonstration

This is useful tool when you wnat to transmit a skill from an instructor to instructor to group members. Ultimately, the learner should perform the learning task to a satisfactory standard on his or her own. A demonstration is good for mastery of a motor skill, is excellent for transforming theory to application, and should be followed by a period of questions and answers. It is best in smaller groups (5-20) and it is important to have individual instruction during the practice period. Introduce the theory and purpose first then describe the steps of the operation before demonstrating it. Afterwards, you should review the procedures and answer any questions. Students should then practice the procedure themselves.

## Diad or Triad

If the group is larger than forty-five or fifty, this tool gets people talking and reacting to what the speaker has said. After a lecture, ask the group to break into two's or three's and meet for up to five minutes to discuss an assigned question or to identify questions from the presentation. A reporter from each diad or triad summarizes its discussion for the total group. If time is a problem, representative reports can be given from various sections of the room.

## Discographies

Supplement your bibliographies for the curriculum with lists of recorded musical selections - tapes, compact discs, and records - that illustrate, embody, or amplify the content you want to convey. This can be used effectively in history by collecting songs relating to a certain period in time. After the class has listened to the recordings, they can discuss the content of the songs in relation to the themes of the unit.

## Drawing

Drawing is an alternative to expressing oneself with words. It can help learners discover elements about themselves that they didn't know were there. This is also a useful tool to help leamers translate complex abstract ideas into a concrete presentation of what they understand. Give each participant a large sheet of paper (newsprint or flip chart paper works well) and marking pens or crayons. Have masking tape available so pictures may be displayed on the wall. Give participants about fifteen to twenty minutes to complete their pictures. Insist that participants use no words in their pictures. When the pictures are all on the wall, move as a group from picture to picture, asking the "artist" to say something about the picture - what it depicts and the difficulties in creating it. Encourage the group members to ask questions of each "artist". When the exercise is complete, lead a discussion about the meaning of the exercise and what participants believe they learned.

## Field Trip

This techmiques is effective in adding to what is presented in class, it allows students to become more engaged in the topic that the field trip is based on. T'o be effective, field trips require considerable planning. Make sure you have clear objectives around what you hope your students to get from the field trip. The instructor should visit the site before the trip, and discuss with the guide what you want the class to see and do. Discuss with participants what they should look for on the trip. After the trip, help the participants amalyze what they saw, its meaning, and the telationship of what they learned on the trip to other topics discussed in the course.

## Forum

This technique is effective when a resource person is coming into the classroom and you want the students to have an opportunity to interact with the person. The forum follows the resource person's speech. Plan for fifteen minutes to an hour of open discussion. Encourage students to offer their opinions on the topic, to raise and discuss issues, and to challenge the comments the resource person makes, as well as to question each other's comments. As the instructor, your job is to moderate the discussion. Again, it is important that you are clear what you want to accomplish with the forum. Make certain that the resource person has agreed to participate and understands how it works. Explain to the class what a forum is and how you plan to use it. Work at balancing contributions from as many class members as possible. Be prepared to jump in with appropriate questions or comments if the discussion lags.

## Group Discussion

This is a classic teaching tool used in adult education. It is a good way to involve people and share ideas. It is also a great way to have students interact with you, the instructor. Discussion groups work best when they are no smaller than five or six and no larger than twenty-five to thirty. Participants in a group discussion must have some knowledge of the topic to be discussed, either from assigned readings, previous lectures or other formal presentations, or from personal experience. Participants are generally seated in a circle to facilitate easy contact with each other. Emphasis is on interaction among group members and on sharing of experience and points of view. Use an "ice-breaker" activity so people become acquainted. Be specific about what the group will discuss. Limit introductory comments about the topic to fifteen minutes or less. Keep the discussion directed and on the topic. Bring people into the discussion who are reluctant to speak and politely discourage people who want to dominate the discussion.

## Group Project

If you are teaching a class that meets over a period of time, this is an excellent tool to help participants learn together. From two to four participants work together on a project such as tracking down specific information on a topic and presenting it to the class, developing a class presentation on some topic, or a similar task. Encourage participants to turn in a project proposal. This allows the instructor to provide comments and make suggestions for resources. Give group members a clear idea of what product is expected of their effort. Allow participants to select their own projects without domination from the instructor. Be available for consultation when asked.

## Internship

For longer training periods, when you are working with a group of learners who are interested in learning clusters of skills, the internship can be extremely valuable. You can devise many types of internships, depending on the time available and the interest of the learners. For the internship to work well, however, the participant (intern) must spend enough time actually working in the new job not only to learn how to do it, but to learn something about the relationships with other people and the organization itself. Interns usually serve from two to three weeks to a year. After some observation time, the intern usually has the opportunity to perform the tasks expected of someone working in the particular setting.

## Interview

This technique can be used when bringing a resource person into the classroom. It is particularly effective if your guest is not accustomed to speaking in front of a group. Sit in front of the class with your guest and conduct a discussion based on questions you have prepared. You can send a copy of the questions to your guest in advance, if you like, however, interviews are often more interesting when they are spontaneous and unplanned. As the instructor, you can ask a few questions, then encourage the class members to ask questions as well. This works well if the group is relatively small (less than 30 members).

## Journal Writing

Keeping a personal journal involves students in making ongoing written records related to a specific domain. The domain can be broad and open-ended or quite specific. Journals can be kept in math (write about problem solving strategies you use), science (experiments conducted, hypotheses and new ideas), literature (record your responses to the books you are reading) or other subjects. They can be kept entirely private, shared only between teacher and student, or regularly read to the class.

## Mood Music

Locate recorded music that creates an appropriate mood or emotional atmosphere for a particular lesson or unit. Such music can even include sound effects (most nonverbal sounds are processed through the musical intellect), nature sounds, or classical or contemporary pieces that facilitate specific emotional states. For example, just before students are to read a story that takes place by the sea, play a r ecording of sea sounds.

During lectures, discussions, project work, or other activities, students should have frequent "time-outs" for introspection or deep thinking. One-minute reflection periods offer students time to digest the information presented or to comned it to happenings in their own lives. They also provide a refreshing change of pace that helps students stay alert and ready for the next activity. During the one-minute period (which can be extended, as well), there is to be no talking and students are to simply think about what has been presented in any way they'd like. Silence is usually the best enviromment for reflection, but you occasionally might want to use background "thinking" music. Also, students should not feel compelled to "share" what they thought about, but asking whether any students with to share their thoughts with the class can be useful.

## Panel

This technique is effective if you want students to see several points of view on a topic. Ask three to five people of different perspectives and backgrounds to present their views on a question to a group. As the instructor, you can serve as a moderator of the panel, trying to make sure that none of the panelists dominates the discussion. You can follow a panel discussion with a variety of approaches in order to get a reaction to the panel: a buzz group or small group discussion approach, diad or triad approach.

Peer Sharing
Sharing is perhaps one of the easiest strategies to implement. All you need to do is say to students, "Turn to a person near you and share $\qquad$ ." The blank space can be filled with virtually any topic. You might want students to process material just convered in class, or you might want to begin a lesson or unit with peer sharing to unlock students' existing knowledge about the topic under study. You might want to set up a "buddy system" so each student shares with the same person each time, or you may want to encourage students to share with different members of the class. Sharing periods can be short (thirty seconds) or extended (up to one hour or more). Peer sharing can also evolve into peer tutoring.

## People Sculptures

Anytime students are brought together to collectively represent in physical form an idea, a concept, or some other specific learning goal, a people sculpture exists. If students are studying the skeletal system, they can build a people sculpture of a skelaton in which each person represents a bone or group of bones. In math, they can create people sculptures of different equations, each person representing either a number or a function in an equation. Assign a student to help "direct" the activity, or let the components of the sculpture organize themselves. The beauty of this approach is in having people represent things that were formerly represented only in books, overheads, or lectures. People sculptures raise learning out of its remote theoretical context and put it into an immediately accessible social setting.

## Problem-based Learning

With this technique, teams of five to ten students, whom you supervise, work together for three to six hours each week to solve a large-scale problem that you assign. The rest of the week is devoted to an independent study generated by the problem. The originality of this method is in that the problem to be solved is a problem for which the students have received no specific training at all. To solve the problem, students must use the following systematic procedure: 1) in groups, they read the problem and find the definitions of terms they do not know; 2) they analyze the problem; 3) they identify the knowledge they need to acquire to solve the problem; 4) they classify this knowledge; 5) they establish priorities for research and study (objectives); 6) they divide the work; 7) they gather material and study individually, according to the established priorities (this last step takes the longest time: 1520 hours). After completing these steps the students meet again to pool their learning and try to solve the assigned problem. If their work is not satisfactory, they must increase their knowledge before meeting a second time. The students work by themselves, using the documentation at their disposal. When they have solved the problem, they assess what they have learned, then begin a new cycle to try and solve another problem. In problembased learning, the crucial step is how you formulate the problems. Each problem must allow the students to attain one or more of the course objectives in question. With this method, your role is to guide the students in their analysis of the problem. Among other things, you must ascertain that the hypotheses they propose are valid and that the learning objectives they select are appropriate. You can also suggest documentary resources to them and question them about their procedure and the solution they propose.

## Publishing

By providing students with opportunities to publish and distribute their work, you make the point that writing is a powerful tool for communicating ideas and influencing people. Publishing can mean printing out multiple copies of a paper or poem for each member of the class or submitting writing to a school newspaper or some other publishing source that accepts student work.

## Quiet Meeting

This is a good tool for five to twenty people who know each other quite well. The key to success is not allowing people to engage in a discussion. Participants sit quietly in a circle and reflect, sharing an idea from time to time, but not dwelling on it or encouraging comment from others. The group focuses on a topic or question written on the chalkboard. Someone in the circle may share a personal experience related to the topic, express a feeling, or add information. The other participants do not react to the person's comments. The are of course free to make their own comments when they wish to. The power of the quiet circle is in the moments of silence when people are thinking and feeling and not talking or listening. Use this tool when the group believes it can benefit from reflection and contemplation. Stress that accepting quiet time as useful for learning is a necessary prerequisite. Explain the rules. As the instructor you can participate by making limited contributions. Be prepared to react to participants who cannot bear long periods of silence. You may need to talk with them privately about their concerns, and about what can be gained from quiet contemplation.

## Role Playing

Role playing is an excellent way for participants to experience a situation in a safe environment. It works well when studying interpersonal relationships, practicing job interviews, exploring community issues or probing topics where emotions run high and several perspectives are involved. It can also be used effectively to get a feel for what it was like to live in a certain period of history or to be an historical figure. There are a few different ways you can conduct role plays. You can give each group of three to four people a different issue and have them plan the role play themselves. You will need to give the group about 10 minutes or so to decide who will play which role and to prepare the role play. Each group can then present their role play for about 2 minutes, after which, you, as the facilitator can debrief the players asking them how they felt in their particular role (this can be especially valuable when the role the person is playing is one they have little understanding of). After debriefing, the group can discuss the issue raised and any insights they received from the role play experience. Another way to conduct role plays is to involve only three to four people from the entire class and to select players carefully to avoid the possibility of some persons embarrassing themselves. You can select the players before the class meets so that they have a chance to think about their roles. Develop specific roles for each player in sufficient detail. Do not let role players see each other's specific role assignments. Role players have no script, they must feel their roles and say what they believe the situation demands. While the role play is being carried out, direct the rest of the class to look for specific behaviours, emotional reactions, and underlying forces that emerge in the role playing drama. Stop the role play when sufficient information has been presented for a discussion. At the end of the role play, debrief the players and conduct a discussion of the insights received as mentioned above.

## Searching for Assumptions

Teachers need ways of helping learners explore the foundations for their ideas and other people's ideas by identifying assumptions. This tool is best used with other teaching tools - for example, during a group discussion. Take time to explain what an assumption is, give examples of assumptions from written material so people are comfortable with the process. When discussing written material, a film, or videotape, or a person's contributions in a group, ask, "What are the assumptions behind these statements, pictures, images?" Possible areas for exploration include: assumptions about people and their motivation, about govemment and its operations, about society and its purposes, about competition and cooperation, about progress equaling material possession, about who controls decision making in a society, and so on. This process can take some time, especially when people have not done it before. Avoid presenting your own assumptions in a way that suggests they are the correct ones.

Seminars
With this teaching tool, learners are encouraged to explore personal learning projects and then report the results of their efforts to the total seminar group. This approach works well when you are offering a general topic where participants can select one rather specific idea within that topic and explore it in depth. Not only do participants learn about a given topic, and learn what other participants have found out, but they get practice in self-directed learning. During the first seminar it is valuable to spend some time discussing ways of finding, organizing and presenting information on topics. As the instructor, you can lead a group discussion following each seminar presentation. The seminar works best with groups of five to fifteen. Often seminar participants provide both a written and oral presentation to the group. Make sure you give the overall seminar a focus, with each participant's work contributing to that focus.

## Simulation Game

This tool involves participants in situations similar to those which they may face in real life. Games may be paper and pencil activities with a series of problems to be solved, with new information fed into the process as the game progresses, and chance put into the game via card spinners and other devices. Games may also involve computer simulations where participants work the entire game by acting and reacting to information presented on a computer screen. Provide participants with background information about the subject matter the game addresses before beginning the game. For some games, you might want to immediately launch into the game, with a discussion of its purpose held until the game is completed. Stop the game from time to time to assess progress, problems and frustrations. Participants may also want to share strategies they are using in working the game. When developing your own game, make certain it is appropriate for the learners' level of understanding and background information about the topic. At the completion of the game, spend time discussing what was learned, what difficulties people had, and how particular problems were solved.

## Simulated TV Show

This is an adaptation of role playing. In small groups of five to six, ask participants to plan a simulated television show from five to seven minutes in length around an assigned topic. Each small group could portray the same aspect of a topic or different aspects. Provide background reading and other information sources prior to the session where they will do the simulated TV show. Suggest the following for each group: 1) discuss the information about the topic and come to some common agreement about the available information; 2) select a type of television show (game show, soap opera, news broadcast, documentary, situation comedy, detective show or western). Give each group about one hour for the discussion and the development of the TV show. After the hour, ask each group to present its show in approximately five to seven minutes. After each presentation ask questions: What maint points were you communicating? What difficulties did you have in deciding what ideas to communicate and how to communicate them? Upon completion of all the presentations, discuss common themes presented by all groups. Ask questions: Were you able to understand the person, event or topic, at a level beyond reading or hearing about it? Assuming that you were, what were some of the dimensions of this deeper level? What did you learn personally from this activity? Did you find this activity difficult? Were you uncomfortable with it? Why? Don't compare groups to each other and avoid rushing the process of developing the TV show and discussing it afterwards.

## Socratic Questioning

With this technique, the teacher serves as a questioner of students' points of view. Instead of talking at students, the teacher participates in dialogues with them, aiming to uncover the rightness or "wrongness" of their beliefs. Students share their hypotheses about how the world works, and the teacher guides the "testing" of these hypotheses for clarity, precision, accuracy, logical coherence, or relevance through artful questioning. The purpose is not to humiliate students or to put them in the wrong, but rather to help them sharpen their own critical thinking skills so that they no longer form opinions simply out of strong emotion or the passion of the moment.

## Think-Pair-Share

With this technique, the group is given a question to be answered, an issue or a problem to be solved. The question is one that does not have any right answer but has more to do with opinions and feelings about an issue. Initially the participants are asked to think about the topic and write their responses to it on a piece of paper. After about five minutes, the participants are then to pair up with another member of the class and discuss what they have written on their paper. After another five minutes or so, the pairs are to come back to the large group and share what they discussed. This technique is a great way to hear from all class members on an issue or problem. Because of the time focus, this is a relatively quick way to get opinions shared fairly quickly.

3-D Creation
Making three-dimensional creations is a powerful tool for uncovering knowledge participants may not know they have. As in drawing, this method allows learners to translate abstract ideas into concrete representations. This method also indirectly teaches cooperation and idea sharing. You can use this approach for almost any abstract idea: adult learning theories, labour-management relations, theories of world trade, approaches to family relationships, and so on. Break the class into groups of three to five members and ask them to create a 3-D representation of an abstract idea by using common office supplies such as tape, paper clips, paper, marking pens, envelopes, or easily available material such as paper cups and plates, fabric, and boxes. Give each group the same inventory of supplies. Allow each group about an hour to discuss and construct a 3-D creation of the idea they have been assigned. Suggest they might want to spend about half their time discussing, the other half constructing. When all groups are finished, or time is called, move everyone from creation to creation while a representative of the group explains problems in building the creation, what ideas the creation represents, and the ideas the group discussed. Lead a group discussion of the problems people experienced with this method and what was learned from it.

## References

Brain Compatible Strategies (1997). by Eric Jensen. Del Mar, California: Turning Point. Charting Your Course: how to prepare to teach more effectively, by Richard Prégant (1994). Madison, Wisconsin: Magna.

Mastering the art of teaching adults, by Jerold W. Apps (1991). Malabar, Florida: Krieger.

Multiple intelligences in the classroom, by Thomas Armstrong (1994). Alexandria, Virginia: The Association for Supervision and Curriculum Development.

