# Color Coding for SI Strategy Cards:

- Study Techniques.....pink
- Problem Solving.....orange
- Group collaborative techniques.....green
- SI Leader Tips.....blue
- Organizational/Visuals.....brown
- Recall/Review....red

# **Critical Exam Review**

The critical exam review assists students to tailor their study methods and testtaking strategies to the cognitive levels of questions asked on the exam. Blooms Taxonomy - http://www.coun.uvic.ca/learn/program/hndouts/bloom.html provides a useful structure in which to categorize levels of cognition (LOC) of test questions (i.e. recall, conceptual, application etc.). Ideally, this activity should be done before students receive the correct answers to exam questions. Begin the activity by asking students to categorize questions they missed according to the Bloom's LOC. The SI Leader should do the same for each exam question. Then, for each question they missed, identify why they think they missed the guestion (did not study that material, careless mistake, did not read the question carefully, vocabulary difficulties, did not understand what the question was asking etc...). Finally, have the students look for patterns in the types (LOC) questions they missed and why they think they missed the question. This should lead into a discussion of the most effective way to study for the next exam based. Finally, each student should leave with a written study plan for the next exam.

# **Post Exam Survey**

The post exam survey is a self-test for students to assess how successfully they studied for an exam. The survey can be used in an SI session after an exam to target areas on which students need to improve, and should be given BEFORE the students see their exam results (if possible). Each survey question should have students assess their understanding of specific and important concepts explored in class and should include course concepts which the class generally excelled on, and concepts for which the class scored low. The total survey points should add up to 100 so that students can easily compare their post exam survey % score to their exam % score. Then the leader should read each question and have the students score themselves based on the specific value of the question. After all the survey questions have been asked, the students should total their score and see how close their survey score is to their exam score. This should lead into a discussion of the most effective way to study for the next exam. Sample question for a 10 question survey: On a 10 point scale rate how well you understood the differences between ionic, polar covalent and non-polar covalent bonds.

#### NOTE CARDS

Note cards can be used for vocabulary, formulas, concepts, questions, etc. Take a stack of index cards with you to your session and have the students construct the cards during the session. Be sure to show the students how to make them and how to use them during your session. Write the cue or question on one side of the card and write the definition, description, or answer on the other side. Note cards can also be folded in half to produce more sides (Side 1 - term or formula; Side 2 – definition; Side 3 – description or relation to larger concept; Side 4 – example or application problem). Note cards are also portable and can be used as a quick review before tests and exams. Students can also organize note cards or use them in concept maps to see relations between ideas. Encourage the students to place the relevant cards in a place where they can see them regularly to assist them in remembering important information.

#### **OUT LINE TEXT CHAPTER**

Have students work in groups of 2-4 to make an outline using the headings from an important chapter from the text. Be sure to point out that the size and the placement of the headings are important for determining the main ideas and supporting details. After you have this "skeleton" outline of the chapter, have the students read to determine the important points under each heading. If the students have trouble determining the important points, have them turn the headings into questions and then read to find the answers. The answers are (most likely) the important points. Who, what, why, when, where, and how are good questions with which to begin. Have groups compare important points with other groups.

#### **READING & MARKING THE TEXTBOOK**

Ask students to first reflect on and jot down their own guidelines for how they currently mark their textbook. Then in small groups of 2-4, discuss the following and try to reach consensus on the following as they are related to the course:

- 1. Why is it important to read the chapter?
- 2. When should you read a textbook chapter and why?
- 3. What should be the goals for reading the chapter?
- 4. Why mark the text?
- 5. What should you do with your markings?

Then have each group share the pertinent reading/marking textbook suggestions with the whole group. Pick a chapter from their text and have them INDIVIDUALLY read a few pages and apply the suggestions. Have the students compare their markings by JUSTIFYING why they chose to mark that part of the chapter.

This can lead to a discussion of what types of course material students are focusing on in their reading (facts, concepts, applications, supporting details, relations among ideas etc..), and can help students tailor their reading strategies to course material stressed in the lecture, and on exams, quizzes and assignments.

#### **INCOMPLETE OUTLINE**

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.

The groups must then work through their notes to figure out how to fill in the 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, making connections easier to find and understand. It helps the students figure out what is important.

#### CORNELL METHOD OF NOTE TAKING

Have the students make several sheets of paper using the following directions:

- Create a recall column by drawing a vertical line down the page about 1" from the margin.
- Create a summary area by drawing a horizontal line across the page about 1" from the bottom.

Have students take notes in the main area of the page, leaving the left and bottom blank. Ask them to take notes, using this format, during the next lecture. At the next session you could use the note review strategy to ensure all students have the same important information in their notes. Then have them make up cue questions to put in the recall column. These questions should get at the important information in the notes to the right. Be sure students include both general and specific questions in the Recall Column so that they can test themselves on all the information. Finally, have the students write a brief summary of the important material in their notes.

#### **NOTE REVIEW**

This is a method of getting the students to work together to review and augment their lecture notes in an organized way. In small groups, have the students take turns reading a portion of his/her notes. Encourage other students to interject with details missed or questions about the topic. Give students time to add information to their notes between turns. Follow up with a short discussion in which students share what note-taking strategies they find effective. Suggest that when students take notes in the lecture they include an "SI question" in the margin for the aspects in the lecture they would like to discuss in the SI session. Sometimes it is difficult to recall what those questions were if SI sessions are not right after the lecture!

# PREDICT THE NEXT LECTURE TOPIC

This technique helps students prepare for new material, especially if it can be connected to information they have just mastered in the SI session. Have students work in small teams to reach consensus on what they think will be the next lecture topic. This should be done without looking at the course syllabus. Encourage them to make connections between the last lecture and the next one and to use these connections to justify why they think this would be a suitable next topic area. Have teams share their ideas with the whole group. If the lecture topics are posted in the course syllabus, refer to it after the whole group discussion. If the next class topic is different than what the groups predicted, have them reflect on the possible connections of the actual upcoming topic to prior course topics.

### **PREDICT TEST QUESTIONS**

Put students in groups of two or three and assign them to write a test question for a specific topic, ensuring that all topics have been covered. Ask students to write their question on the board or on an overhead for discussion (would the professor ask this question?, what is the answer?, etc.) 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.

At the end of this question have students us Bloom's Taxonomy - <a href="http://www.coun.uvic.ca/learn/program/hndouts/bloom.html">http://www.coun.uvic.ca/learn/program/hndouts/bloom.html</a> to characterize the levels of cognition (LOC) (i.e recall, conceptual, application etc...) reflected by each question. Do student's questions match the LOC reflected on exams, as reflected in prior exams or from the SI Leader's experiences when they took the course?

#### **IDENTIFY THE "BIG IDEA"**

Ask each student to tell what he or she thought was the most important concept, idea or new information they learned during a particular lecture or even a session. "If you could only take one thing from the information present, what would it be?" Ask each student to offer their "take home" and to JUSTIFY why they feel it is an important or critical idea.

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

#### **SUMMARIZE LECTURE**

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 Civil Liberties and Public Policy, what did the professor highlight regarding this?" You may want to ask them to try summarizing without looking at their notes; however, if they are having a difficult time remembering, tell them to refer to their notes.

Have students add to or revise their notes based on the whole group discussion.

This can be a good strategy to use when you have a small SI group.

# **PEER PROBLEM-SOLVING LESSONS**

Select several problems over related material. Divide the students into groups of 2-4 students. Give each group one problem and have them write out the solution, using their textbook and class notes, on a whiteboard. Remind students that upon completion of their work it will be evaluated by the whole class, and that one member of the group - chosen randomly upon completion - will come up and explain the problem in as much detail as they can. The other group members can help if (s)he gets stuck. Have them discuss the group's thought processes and methods used in finding the solution. The SI leader then leads a discussion in which the rest of the SI group (in concert with the SI Leader) evaluates the problem solution.

#### **BOARDWORK MODEL**

This is a method of organizing board work in order to facilitate an understanding of problem-solving strategies. The board should be divided into 4 sections:

- 1- Prerequisite knowledge
- 2- Mathematical or conceptual steps
- 3- Narrative of the mathematical steps or explanation of conceptual steps
- 4- Additional sample problem.

Depending on the size of your SI group - Encourage 1-2 student to fill out section 1 on the board. Then, encourage 2 students to work together to complete section 2 and 3 on the board. Lastly, have 1-2 students complete the 4th section. Encourage students to use this model when studying outside of the SI session. In a larger session, another set of students can work at another board.

# PAIRED PROBLEM SOLVING/THINK ALOUD

This strategy requires students to verbalize what they are thinking about as they read a passage or solve a problem. Start by pairing the students into groups, one student should be the thinker/problem solver while the other student is the listener. 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. Be sure the listener continually encourages the thinker to vocalize. The listener should also point out any errors. The pairs should be reminded prior to the start of the activity that one person in the group, chosen randomly upon completion, will be asked to share the problem solving process with the larger group. This strategy of random assignment of reporter can help students realize the benefits of both teaching others and in active/evaluative listening.

#### SEND A PROBLEM

This strategy can work in pairs or individually depending on size of group. It works well in classes that involve problem solving (chemistry, math, genetics) after a new concept has been taught to check for understanding.

Generate a list of problems and attach each to a whiteboard on a sticky note. Give each group a different problem. Each group should have a different color dry erase marker if possible. Have each group complete Step 1 on the white board. After a minute have them pass their problem to the right and then complete Step 2. If the receiving team does not agree with an earlier step, they can correct it and add their next step. Continue process until all steps are complete.

If your SI sessions are in the CSL Science Lab, problems can be posted on the painted idea board around the room, and groups can move to complete each subsequent problem step.

### STRUCTURED PROBLEM SOLVING

Identify the steps in solving the particular problem, and separate the students into groups. Because the steps for solving the problem are given, it is easier for the students to handle large complex problems and they have greater confidence. Assign them a sample problem and give them a specific time period, at the end of which the group must have reached a consensus for the answer.

Have students report their solution and explain how each step was used in the context of the problem. This strategy is most helpful for larger multi step problems.

#### **FIRST LINE ONLY**

Problem-solving courses, particularly in the Sciences, are often perceived as major obstacles for many students. Frequently, students do not know where to commence or approach a problem. The First Line Only Strategy is particularly useful for students who need to be encouraged "to take the first step" towards finding the solution. In order to complete this exercise, the following is recommended: Firstly, you need to present a variety of types of problems so that the learner builds confidence in addressing the first level of the problem. Secondly, you will also need to give a strict time limit so that only the first step towards the solution is addressed. You may want to follow this exercise with a matrix or Board Work Model that assists them in further categorizing how to solve problems.

#### THINK-PAIR-SHARE

This process requires three stages. The students should be given a multiple choice question. Then encouraged to think about it alone for a (short) designated time period, and vote on their answer. Clickers or colored A-E index cards can be used for the voting process. If a lot of students chose the incorrect response, then they pair with another student and attempt to reach consensus on the answer. They should also be encouraged to JUSTIFY their answer using course concepts. Lastly, each pair votes (using clickers or index cards). The SI Leader then chooses one person from several teams to explain why they chose their answer. The rest of the group listens, evaluates and provides constructive feedback.

## **DIVIDE AND CONQUER**

This strategy is designed to conquer a difficult reading assignment. The assignment should be divided up into meaningful sections and each student (or group) should be assigned one section. Ask the students to read and summarize their section. After they all have read the material, have each student read aloud their summary. Encourage students to ask questions and be prepared to provide feedback on areas students may have overlooked. Lastly, discuss the article as a whole.

#### **JIGSAW**

Similar to divide and conquer, this is a method of making the group as a whole dependent on subgroups. A large group is divided into 2 or more groups (3-4/group) and each group is assigned a topic/task/step in problem etc. becoming an "expert". 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. The jigsaw group is then asked to use knowledge the expert bring to teach the material to the rest of the group and/or reach consensus on an activity (solve a problem, evaluate an idea, build a concept map etc...).

# **LEARNING CELLS**

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

- 1) Students develop list of questions & answers over course material
- 2) Form pairs
- 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

Encourage students to ask more open ended questions and to vary the types of questions.

#### **CLUSTERS**

In clusters, group participants are divided into smaller groups for discussion. They may also be allowed to self-select the small group they want to be in. After discussing the assigned topic the cluster may report their findings to the large group.

#### Hints:

- If possible, see that each group is provided a space on the board to record important points of their discussion.
- Allow time for each group to report back to the large group.
- Remind students prior to the activity that you will assign someone (chosen randomly after completing the activity) from each group to report back.
- Good topics of discussion require that groups make a choice, defend an idea, or propose a solution. This helps to focus the discussion and encourages students to use course concepts rather than just memorize them.

#### **ASSIGNED DISCUSSION LEADER**

This is a good activity which can model an effective study technique that can be used by students when they study in small groups outside of SI. One person in the group is asked 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.

#### Hints:

- When assigning a discussion topic to individual members of the group, you may need to be prepared to allow a little time for the person leading the discussion to prepare for the discussion.
- In this activity the discussion leader is not being asked to teach the
  material to others in the group, rather they are being asked to lead a
  discussion. This involves coming up with thought-provoking
  questions which encourage discussion and application of course
  concepts.
- This technique works best when everyone or nearly everyone in the group is given an assignment to be the "expert" on prior to the SI session.

# JUSTIFYING THE ANSWER/PROCEDURE/STEPS

This technique reviews 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 insure that they will be able to satisfactorily complete more of the same type of problems in their homework or on a test.

# **GROUP SURVEY**

Each group member is surveyed to discover their position (opinion, viewpoint, decision, solution) on an issue, problem or question relevant to course concepts. Clickers or colored A-E index cards could be used for this initial survey. This process insures that each member of the group is allowed to offer or state their point of view. Individuals then confidentially write a brief (minute paper) which justifies their viewpoint. These are given to the SI Leader. While students are working on another SI activity, which address concepts related to the opening problem, the SI Leader can pull diverse viewpoint justifications from the session attendees and offer them up to discussion towards the end of the session.

#### Hints:

A survey works best when the problem/issue or question is something that is relevant to student's personal experiences, or challenges common misconceptions (i.e. opinions or views are briefly stated, and anonymous. Be sure to keep track of the results of the survey.

### **CONDUCTING SESSIONS**

**Redirecting Questions** is used to encourage more and better student to student interaction. Whenever possible, ask students to answer questions directed at you.

**Wait Time** is the time that elapses between an SI leader-initiated questions and the next behavior (student response or leader talking again).

Wait Time 1: time the leader waits after asking a question.

Wait Time 2: time the leader waits after a response.

**Checking for Understanding** is essential that students can explain the discussed topic in their own words so the leader knows that students understand before proceeding to the next topic.

**Hint:** Use open (rather than closed) questioning when redirecting or checking for understanding. Example: Who knows the answer to that question? (Rather than "Does anyone know the answer?"). Start questions with Who, What, Where, Why, and NOT Does, Would etc...

# **QUESTIONING TECHNIQUES**

Bloom's Taxonomy (1956): Use the chart below when developing questions to use during sessions. Make sure you use a variety of lower and higher level questions.



#### SI SESSION ACTIVITY PLANNING

- 1. What is the most difficult content? (Important is not the same as difficult. There will be concepts that you won't have time for.)
- 2. What strategies will work well with these concepts? How much time do you expect to spend on each activity?
- 3. How many students do you expect? What will you need to adjust in these strategies you've chosen depending on how many students attend? How can you be ready for students who are not prepared?
- 4. What do you need to prepare to make these strategies successful? (Review your own notes, write informal quiz questions, select/solve problems etc)
- 5. Write a summary of plans on Planning the SI Session.
- 6. What would you like to remind the students to study on own?
- 7. How will you work with your SI professor to make sure that students are aware of what you will be exploring in the week's SI sessions and why it is important to come?

### **PLANNING EXTENDED REVIEW SESSIONS**

Reviews should fall at least 2 days prior to the exam to allow students time to continue to study. Remember a balance must be struck between quality and quantity. Generally the best strategies utilize small groups, which allows for students to get more contact to understand the material. Plan to discuss the kinds of questions to expect on exams. Useful strategies for extended sessions:

- Divide and Conquer: Cover lots of info in short amount of time. Use for going over notes, texts or sample tests.
- Matrices: Allows you to compare/contrast in an organized way. Structure so students have enough time (in small groups) to determine title, subjects, categories, but can still complete outside the session.
- Reciprocal Questioning: Helpful when students want to ask you questions.
   During this process the leader continues to redirect questions. By timing the asking and answering, the leader keeps the session moving quickly.
- College Bowl Allows students to work together to teach each other the
  answers to possible test questions and to get feedback on their understanding.
- Round Robin Worksheets Allows student to go and work on prior worksheets you developed in small groups. Students choose the material they need to explore further.

#### **PLANNING GROUP WORK**

In planning group work for an SI session be sure to consider the following strategies:

- 1.Require that teams reach consensus on the product of the activity AND their justification for it. This insures that students are thinking "deeply" about course concepts (applying, synthesizing, evaluating, integrating knowledge), rather than just memorizing.
- 2.Random assignment of the group reporter will facilitate collaborative discussion rather than individual/silent work and insure that all students on each team are prepared to discuss the product of the activity (not just the most knowledgeable or confident student).
- 3. During the activity let groups mostly work on their own so that potential misconceptions can be revealed and clarified for everyone.
- 4. Make sure that the product of the activity is shared with the whole group so that misconceptions revealed during the activity can be clarified.

#### **3 BEFORE ME**

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

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

#### **ASSESS THE SESSION**

Occasionally getting feedback from your groups can be very helpful. Ask them how they feel the session went. Were all of their questions answered? Did they feel comfortable during the session? Were there aspects of the session that could have been improved or done differently? What suggestions would they make for being able to cover more material or to cover it more thoroughly? They may have valuable ideas that you may be able to utilize in your next session.

**Hint:** Ask students to reflect on these questions in writing and anonymously. You are more likely to get honest feedback this way. Also positive written comments can be shared with the whole class as testimonials which may encourage students to attend SI!

# K+W+L

Helps students to activate prior knowledge and link to new information to make connections with what is already known. Title 3 columns:

- What I Know
- What I Want to know
- What I Learned.

Can be used to help focus the session on particular concepts that students are having difficulties with.

Towards end of session go back to chart and have students go back to the K column to see if any info needs to be corrected, then see if there are any questions left unanswered and then complete the L column.

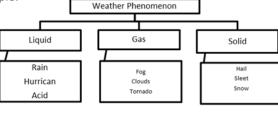
# **AFFINITY GROUPING**

This activity can help students break down a topic to identify and classify its parts. First each student generates ideas about a specific concept and writes each item on a sticky note. Then in small groups or one large group depending on number of attendees, sort and organize slips into categories on board or wall to identify common themes. Have students create a heading for each grouping. If using small groups have each group review each other's or have them explain their categories. Make sure students are only writing one idea per sticky note.

#### **HIERARCHIES**

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

Example:



## **VENN DIAGRAM**

A Venn Diagram can be used to compare the similarities and differences between two concepts, systems or theories. Two overlapping circles are drawn on the board with each circle labeled as one of the two concepts. Students will them write the similarities in the overlapping portion and then differences in the outer portion of the circles. This is a good visual technique for reviewing similar yet contrasting concepts.

## **MATRICES**

Information presented during lectures and the text are usually related to other topics. A matrix is an excellent way for students to see the relationships between different topics throughout the course. Reference your leader's manual for an example and exact directions for constructing a matrix. The SI leader can initially provide the framework and a few clues for completing the matrix, but eventually the students should be responsible for designing the framework and complete the entire matrix.

# **CONCEPT MAPPING**

This strategy will look like a big spider web on the board when you are finished. Have the students break into small groups and either provide them with or encourage them to identify important terms, concepts, or question around which to build the map. Start with a circle in the middle (or top) of the board and include the main idea within. Extend branches out from the central circle that includes all the subtopics from the main idea. Continue to add additional branches with related topics and circle groups of branches that are linked.

Along each branch have them write a brief but specific description of how the terms/concepts are connected. This mapping encourages students to see the overall picture and helps bring focus away from minute details and back to the main ideas. End with an teams evaluating, correcting and reflecting upon (to the whole group) another teams map.



A concept map of the concept of concept mapping!

#### **DOUBLE TIME LINE**

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

#### **TIME LINES**

This technique utilizes visual representation to improve the processing of material. Begin with a horizontal line that represents the continuum of time. Important events are inserted relative to each other, creating points on the line. Each point that denotes an event should be marked with the date, a brief description of the event, and significant person(s) involved.

### **VISUALS**

Don't forget the importance of using visual study aids to emphasis important points. Visuals should be used to help students grasp the "big picture." The key idea is to visualize the information and use as few words as possible

# **VOCABULARY DEVELOPMENT**

Chunking related terms into meaningful groups can be more helpful then drilling students on exact definitions. Compose a list of key terms from the lecture ranging in levels of specificity. Scramble the terms and then encourage pairs of students to organize the terms into several categories that are meaningful to them. Then have them define or give an example of terms where appropriate. Finally, have each pair discuss their categories with the entire group. Get the students to check the spelling!

# **INFORMAL QUIZ**

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

#### **ONE MINUTE PAPER**

The one minute paper is designed to help students realize what they know or do not know i.e. 'check for understanding'. The leader should ask the students to take out a piece of a paper and write on the topic presented by the leader. Remind them it is most important that they put their thoughts on paper in their own words, not that they produce polished piece of writing. Then have each student share their response with the group. Additionally, the leader may choose to encourage conversation regarding similarities and differences between students' ideas.

**Hint:** Effective minute papers ask students to defend a position, evaluate an idea, or apply a concept, justify an answer. In all cases, students should be encouraged to use course concepts.

# MAKE/TAKE A PRACTICE QUIZ

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

# 3:2:1

This strategy can be very useful before an exam. Have each student come up with: 3 topics that they know well enough to "teach" to the other students, 2 topics that they do not understand and need further assistance with, and 1 possible test question. Then have each student write their 3:2:1 topics on the board. Most of the time, the students' topics will overlap allowing students to "teach" the other students who need additional assistance. Follow up with discussion of the possible test questions.

# **RECIPROCAL QUESTIONING**

This strategy improves students' questioning and reasoning skills by encouraging the students to consider the quality and type of question. The leader should prepare ten to twelve varied questions over an important lecture or section of text. Once at the session, ask the students to read or review the assigned material to understand it 100%. Then, allow them to ask you questions. If students' questions extend beyond the reading, model your think process for them. After students have finished asking their questions, begin by asking them questions directly from the text or lecture. Then move on to higher order questions (refer to leader manual pg. 30-31). Finally, lead a discussion concerning what type of questions were asked? What where the differences and similarities between the students' and leader's questions?

#### MEMORY

This strategy works as a great opener for an SI session. The SI leader should prepare between 12-24 note cards. Half of the note cards should have vocabulary terms and the other half should have corresponding definitions (feel free to be creative). At the session, the SI leader should shuffle the note cards and place them facedown. Allow the first student to turn over 2 cards at a time until a match is found. Once a match is found, have the student remove that pair of cards and allow another student to take a turn finding a match. Allow the students to continue taking turns until all the cards have been paired together.

### **JEOPARDY**

This is a fun way to check to see if students know the material well enough for a test or quiz. The key is being well prepared with about 30-35 "answers" at different levels of difficulty and in different categories. Form small groups and let them know the rules: No books or notes. Randomly assign a person to answer each question after the team discusses the concept before giving the answer. If the question is missed, other teams can steal. Teams keep control of the board with correct "questions" or alternate from group to group.

# **COLLEGE BOWL**

This is a fun way to check to see if students know the material well enough for a test or quiz. The key is being well prepared with about 20-30 question at different levels of difficulty (conceptual/application/synthetic) and in different categories. Form small groups and let them know the rules:

- No books or notes.
- All teams start with 10 points.
- Team leader raises their hand when ALL members on the team are prepared to explain the answer.
- Randomly assign a person to answer each question after the team discusses the concept before giving the answer.
- Have the reporter "wager" points depending on how confident they are that they can explain the answer.
- If the answer is correct, the team gets the points they wagered; if incorrect, the team loses the points they wagered.
- If the question is missed, the team that raised their hand 2<sup>nd</sup> can steal, and try to answer the question.

#### **TABOO**

This strategy can be very useful before an exam. The SI leader should prepare multiple note cards with vocabulary or identification words and one additional related word or term. Once at the session, ask the students to divide into groups and split the note cards amongst the groups. One person in the group must **explain** the vocabulary term to the other group members without using any of the words written on the note card. The group members must then guess the vocabulary word based on the student's explanation. Have each student take a turn explaining. Once the group has guessed correctly, have them add 2 additional words to the card to make it more challenging for the next group. After all the words have been guessed, have the groups switch cards. The SI leader can sporadically join the groups and play along.

## TWO LIES AND A TRUTH

This is a spinoff of an ice breaker game when you are introduced to someone new and you both tell two things about yourself that are true, and one fact that is false, and see if that person can guess which one is a lie.

The leader prepares two false statements about a topic, and one true statement. These statements are then read aloud to the students, and they are asked to identify the true statement. The false statements are then discussed to determine why they are false, and how they could be made true. (This strategy works well to present, "Which of the following statements are true?" questions from old exams).

# **AROUND THE WORLD**

To play a game of "Around the World" is a fun and simple activity, and is especially good for exam reviews and large groups. Before the session, the SI leader should make up a number of questions with simple answers (one-word or a short phrase). The fun begins when you have two students stand up next to each other and ask a question; the first person to answer correctly moves on to the next student to try another question against a new opponent, while the other sits back down. To win the game, a student must travel "Around the World," or win against every other student in the classroom. If no one succeeds in going completely "Around the World," the winner is whoever went around the furthest from their original seat.

### **VERBAL VOLLEYBALL**

In pairs students will review as many key concepts from class that they can remember. Student A will shout out any concept, idea, issue covered in class (make sure student explains idea), followed by student B. Students will continue volleying concepts back & forth until they run out of ideas. They cannot repeat something said by their partner. Spend approx. 8-10 min.

Once in large group ask students for 1 concept/ idea and explain it. Once all have shared, the leader can list any concept that may have been missed or needs further discussion. This is a good opener or closing activity for reviewing class material. It can engage all learners in the review and work in large or small groups.