Learning Strategies, Study Skills, & Paired Courses: Practices for the College Classroom

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Sally Lipsky, editor

At the CRLA annual conference in October 2003, at Albuquerque, NM, colleagues interested in joining the newly-formed Learning & Study Strategies SIG gathered for the first time. At this meeting members completed a survey about potential topics and activities that they wanted to focus on within this new SIG. Respondents overwhelming indicated that their top priority was the sharing of effective programs and practices. Thus, the handbook, Learning Strategies, Study Skills, & Paired Courses: Practices for the College Classroom, was born as a means for sharing useful instructional practices related to college learning and study strategies.

Contributions were solicited from among all CRLA members. Twenty-seven (27) people responded with their contributions of especially successful, unique, and/or rewarding instructional practices.

I expect that you will enjoy reading and trying out colleagues’ suggestions as much as I have!

~ Sally Lipsky, chairperson, Learning & Study Strategies SIG (sal@iup.edu)
Indiana University of Pennsylvania
October 2005
General Learning Strategies:

Strategic Learning in the Classroom
**Sharing Weekly Goals and Progress**

**Description**
For weekly goals to be more meaningful, students should do more than just reflect about what they intend to do. Instead, direct students to write their weekly goal in their planner at the end of each class session. Then, ask each student to tell their goal to classmates. At the beginning of the next class session, have students, one at a time, report their progress toward reaching their goal. If a student does not reach their goal, do a brief problem-solving session to help the student develop additional strategies.

**Additional Recommendations**
It is acceptable for students to work on the same goal week after week. Sometimes I set my own weekly goal and then tell the students why I did or did not achieve the goal. If I did not, I declare the same goal for the next week. Students have enjoyed asking me about my progress and struggles, which has helped them to see that success does not happen instantly!

**Contributor**
Arden B. Hamer, Reading/Study Strategies Specialist & Educational Advisor, Indiana University of Pennsylvania, PA (ahamer@iup.edu)
Collaborative Posters for Strategic Learning

Description
Students need time to pause and reflect in order to consciously and successfully transfer strategies to the next learning experience. In addition, student learning is enhanced in a collaborative experience where they can read and hear what their peers are doing.

As a wrap-up to a semester-long study strategy course, students create a set of collaborative posters. At the top of each poster is a different starter quote:

- *I would advise a new freshman to…*
- *My greatest academic accomplishment this semester was…*
- *Next semester I will…*
- *My favorite learning strategy is…*

Students travel around the room to each poster, read what other students have written, and then write their own responses along with their initials.

Additional Recommendations
The completed posters are very beneficial for new freshmen who do not know what to expect from their college classes. The posters provide great discussion starters and make instruction in learning strategies more meaningful to students enrolled in future First-Year Experience courses.

Contributor
Arden B. Hamer, Reading/Study Strategies Specialist & Educational Advisor, Indiana University of Pennsylvania, PA (ahamer@iup.edu)
4.

**Students’ Letters to Themselves**

**Description**
At the end of fall semester, I give students sheets of stationery and envelopes. Each student writes a letter explaining “three things I learned during my first semester at college.” The following August, I mail students their self-addressed, sealed envelopes prior to the start of their sophomore year. Many students drop by my office to comment on what they wrote to themselves!

**Additional Recommendation**
Keep the letters confidential. Do not read them!

**Contributor**
Jean Leiner, Reading Specialist, Niagara University, NY ([jleiner@niagara.edu](mailto:jleiner@niagara.edu))
General Learning Strategies:

Motivation
Ideal Collage

"All our dreams can come true--if we have the courage to pursue them." Walt Disney

Description

This assignment, the Ideal College, helps students to think about their positive qualities, areas for improvement, and future goals. Students begin to think about their lives as they are now and how they want them to be in the future. They set time frames for achieving short-term goals which, ultimately, lead to achieving long-term goals. Also, the assignment sets the stage for career planning, which is introduced the last half of the semester. Furthermore, it teaches responsibility to meet deadlines and to avoid procrastination.

1. Distribute the assignment sheet and explain that the students are to brainstorm on their positive qualities, areas for improvement, and goals.

2. Explain how to construct the collage – the front of the poster board is to represent them as they are now, and the back is to represent them as they would like to be in the future. Students can use photographs, pictures from magazines and newspapers, words, drawings, memorabilia, and so on.

3. Do not grade on artistic ability. Instead, determine grades by content of the pre-activities, the poster, and the presentation.

4. For the presentation, direct one student to hold the poster for the person presenting. (Having someone else standing beside the presenter helps to calm fears.) The person holding the poster will present next while a new volunteer holds the poster. Continue until all students have presented. After they present, the students place their posters around the room.

5. Afterwards, students write positive comments to other students about their presentations (that is, words of encouragement or things they can relate to) on index cards. Allow 10 minutes for them to write their comments; then have them place the cards under the posters. Students gather their cards and read the comments.

Contributor

Jane V. Tichenor, Ivy Tech State College, Evansville, IN (jtichen@ivytech.edu)
Description
Students need the opportunity to work with and manipulate course content. Silently reading text material, listening to lectures, and taking notes (passive learning) isn’t enough for students (especially first-year students) to adequately understand, process, and apply information. Peer tutors (or instructors) can use games, activities and visual aids to help “bring course material to life”; allowing students to actively participate and engage in what they learn by using all modalities. As we all have learned from brain science workshops, the more guided practice one has, the richer the neural networks become to remember and apply information learned.

At “The Tutor Program,” University of Maine, we developed a game resource file for tutors, including a resource chest filled with craft materials for use in creating games: dice, game pieces, timers, toothpicks, Styrofoam balls, pipe cleaners, wire, beads, cards, molecular model kits, silly putty, clay, colored pencils, crayons, and lego’s. It truly is amazing what tutors can do with a little creativity and imagination! For example:

- Biology tutors use magnetic, molecular model kits so students can build RNA, DNA, double helixes and more. Through creating their own model, students’ learning is far greater than by just studying a detailed graph.
- Chemistry tutors play “Go Fish” to demonstrate bonding elements and develop “Singles Ads” to highlight attracting molecules.
- Math and Physics tutors play Jeopardy, Pictionary, and Bingo to work on like concepts and problems in a different medium.

In preparation for finals, tutors frequently assign each of their students the task of coming up with a game, activity, or visual aid to demonstrate a particular section of the course to the rest of the group. The more the students are involved in the creation of the activity, the greater the learning. For instance, students can be assigned to develop note cards on a concept, sections from their text, or their notes. These note cards then can be used in the preparation of a memory type game, such as “Outburst,” “Taboo,” “Go Fish,” or “Clue”. These activities can be adapted to a variety of subjects. And students have fun while learning!

Training peer tutors regarding the benefits of active learning versus simply re-teaching course material or doing more problems is the key to the success of these games. If tutors do not buy into active learning, their reserve manner and attitude will trickle down to the students in their groups. All of our tutor training sessions include activities which demonstrate active learning. Listed below are a few games that tutors have used in group tutoring sessions:

**JEOPARDY:** An excellent vehicle to practice vocabulary, definitions, theories, math formula, equations, graphs, processes and concepts. Also, this game provides an opportunity for students to learn how to develop potential test questions and prepare for exams. Use the same format as the TV game show.
BINGO: Each square contains a vocabulary word, picture, graph, math formula, or equation. Each student’s card should be arranged in a slightly different order. As the tutor reads from note cards that students prepared, the students try to find a match on their card. If a match is found, the student has to explain why it is a match. If other students feel that there is not a true match, they can challenge and explain why.

OUTBURST: Another game which encourages group interaction. Students write a vocabulary word, process, graph, event, date, theory, or formula on index cards. On the back of the card are several items associated with that word. The object is for the students to try to guess as many of the related items as possible within a time limit.

GO FISH: Using index cards, students write down a vocabulary word, process, graph, theory, or equation. Then shuffle the deck and deal five cards out to each player. The remainder of the pile goes in the middle. Players take turns and ask for a match by describing the process, graph, formula, theory or definition. If there is no match, the student must “Go Fish” by drawing another card out of the middle deck. The point of the game is to match all of your cards. The winner has to describe why each pair is a match.

TABOO: This is similar to Outburst. At the top of a note card is a vocabulary word, process, theory, or formula and on the bottom are a list of words that may not be said while trying to describe the concept to the other students. One student holds a card and tries to get the other students to guess what the word, theory, or formula is without using any of the words at the bottom of the card. This helps students to go beyond the text definition and develop concepts in their own words.

Additional Recommendations
There are many more game shows on TV and board games with which students are familiar. Language tutors can use scrabble and games used in the culture of the language with which they work. Tutors can adapt football, baseball and basketball (not actually on the court or field) to learning concepts. It just involves a little ingenuity, creativity and believing that we can still learn through play, no matter how old we are!

Contributor
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General Learning Strategies:

Listening & Note Taking Strategies
The Importance of Note Taking

Description
This activity increases students’ awareness of the importance of listening and note taking. Students listen to a mini lecture (about 15 minutes) and take notes. Students then trade notes with a classmate and take a quiz using these notes.

Students are graded on two factors: 1) The grade they make on the quiz; and 2) The grade another student gives to their notes. Students realize that a good grade depends heavily on the notes they take.

“The Importance of Note Taking”
1) Listen to the lecture and take notes. At the end of the lecture you will be given a quiz with open notes.
2) Exchange notes with a classmate.
3) Answer the quiz using your classmate’s notes.
4) Give a letter grade to the notes you received from your classmate.

Additional Recommendations
Include the classmate’s grade as part of each student’s quiz grade. Also, direct students to give a specific grade (AÆF) to the other person’s notes. In order to avoid biased grades, do this activity mid-semester after you become aware of existing friendships within the classroom.

Contributor
Virginia D. Granda, CircLES/ESP Coordinator, University of Texas at El Paso, TX (granda@utep.edu)
**Using Mock Lectures**

**Description**
Students practice active listening for three different lecturing styles. As students take notes, they pay particular attention to the lecturer’s verbal and non-verbal cues. The instructor uses varying styles when delivering the lecture on the topic of note taking strategies:

- **The Pacer** – The lecturer is active physically, but with a monotone vocal presentation. The lecturer uses an overhead to present headings for content.

- **The Reader** – The lecturer is physically static, with a quick-paced reading of essential lecture material in an organized list format.

- **The Talker** – The lecturer uses a conversational style of delivery with questions directed at students. There are some physical movements, with brief notes written on the board.

After the mini-lectures, students compare their notes with complete notes presented in various forms (e.g. standard outline, concept map, Cornell method). The class has a lively discussion of the differences between their immediate comprehension of the mini-lecture and the quality of their notes, as well as the pros and cons of each lecture style.

This exercise allows the students to more easily separate lecture content from lecture delivery. Students are encouraged to look for the learning opportunity in a lecture, and to take ownership for their role as an active listener rather than a passive consumer.

**Additional Recommendations**
The exercise is readily adaptable to fit various note forms and lecture styles in science- or humanity-oriented courses. Two mini-lectures may fit better in a 50-minute class time. This exercise flows nicely from a discussion of learning styles. It provides an emphasis on personal responsibility.

**Contributor**
Sheilagh Grills, Learning Skills Specialist, Brandon University, Brandon, Manitoba (grills@brandonu.ca)
General Learning Strategies:

Reading & Study Strategies
Using Textbook Features

Description
Struggling students often do not think about or utilize various study aids. This activity helps students realize that textbooks have many features that they can use to their advantage when reading, studying, and preparing for tests.

Assign each student a textbook feature. Students prepare a short presentation about their assigned feature for which they identify and describe the feature, its function, and how it is useful for college students. Students can use PowerPoint, art work, props, drama, or other means to present their 3-minute presentation. Also, they identify an example of that feature in our textbook, as well as an example from another text.

Additional Recommendations
Don’t let students’ lack of interest stop you from implementing this project. Some students will say that they already know all of the information. However, with encouragement to be creative in their presentations, students enjoy viewing each other’s creativity and talents. As one noted, “I learned more about textbook features than I thought I ever wanted to know!” A few marked this activity as a highlight on the end of course evaluation.

Features include: prefaces, tables of contents, section introductions, chapter outlines, chapter objectives, lists and sequences, sidebars or boxes, tables, graphic aids, vocabulary aids, study questions and activities, chapter summaries, appendices, bibliographies, suggested readings, webliographies, and indexes.

A wonderful source for a list, description, and example of many textbook features is the text Opening Doors: Understanding College Reading, 4th ed., by J. Cortina and J. Elder. Also, various study skills websites have this information.

Contributor
Julia Bickel, Associate Professor of English & Reading, Indiana Wesleyan University, IN
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**Description**
Having taught the Effective Reading course at the University of Prince Edward Island for the past 34 years, I’ve found that the *Quantum Reading Series*, published by Steck-Vaughn Co., to be an ideal instrument to prepare the groundwork for developing better study techniques for students. The software includes key vocabulary for each lesson and pre-reading cloze exercises. The software also includes a comprehension test which presents results in percent format.

In two study technique lectures scheduled for mid-course, I instruct students how to utilize their newly acquired software skills in their university studies. This transfer of knowledge involves students using enhanced preview, study and review techniques.

After a six-week course, students have doubled or even tripled their skimming and reading speeds and have considerably increased their comprehension. Many students claim that this course has assisted them tremendously in their acquisition and absorption of new knowledge.

**Additional Recommendation**
I have developed additional exercises to enable students to raise their skimming and reading speeds. Contact me if you are interested in the supplementary material that I created.

**Contributor**  
**Susanne Manovill**, Instructor, Effective Reading Program, University of Prince Edward Island, Canada  
(manovill@upei.ca)
Using Think Alouds

Description
All too often a student believes that “everyone but me” can pick up any printed information, read it straight through, and understand it completely. To dispel this perception, I often use “think alouds” that model how I make sense of text.

I ask students to bring in a newsletter or magazine about a hobby or a content textbook. I randomly select a student’s material and ask the student to identify a portion for me to read. Seated in front of the class, I begin to “read aloud.” I might, for example, start with previewing the selection and setting a purpose for my reading. As I read, I might pause to ask myself a question about the gist of what I am reading or even about individual words and phrases. I try to consciously draw upon background knowledge and refer to other things I might have read or heard about the topic. When something is particularly difficult to understand—and there is almost always something difficult—I stop and describe some of my options. When I complete the selection, I decide if I’ve fulfilled my purpose for reading. And, if I haven’t, I talk about what I should do next.

By verbalizing my reading process on different types of materials, students see that most readers have to work at reading and that the amount of work depends on the material. This process gives students permission to not understand what they read the first time and gives them strategies for reading purposefully and productively.

Additional Resources


Contributor
Jane McGrath, Professor Emerita, Paradise Valley Community College, AZ (Jellenjay@aol.com)
Description
Frequently students are familiar with textbook strategies such as SQ3R or PQ3R but fail to apply them to their content materials because they feel these techniques are too time-consuming. “PAR for the Course” shortens the process while still maintaining essential elements.

“PAR for the Course”

1. **Prepare** – Read the title and introduction to the chapter. Think about any knowledge or experience you have with this topic. Turn to the back of the chapter and read the summary and any study questions.

2. **Activate your mind** – Break the chapter into “chunks” based on the headings or subheadings. Read each section actively by focusing on and thinking about what you are reading.

3. **Remember** – After you’ve read each section, stop, look away from the book, and remember the important points. Take notes. Then continue reading another section. Also, when you reach a point that you don’t remember what you have just read, stop reading and take a break. When you return, begin with that section and continue until you are finished the chapter or need another break.

Additional Recommendation
Instructors may wish to emphasize the efficiency of the technique. This helps students monitor their reading and gives them permission to take breaks when needed, rather than wasting time staring at the page.

Contributor
**Edith F. Miller**, Professor/Director of Disability Services, East Stroudsburg University of Pennsylvania (emiller@po-box.esu.edu)
**Effective Study Cards**

**Description**
This activity encourages students to make effective study cards. Students choose new and important terms or concepts and make study cards by answering questions (see section below). Not all questions have answers; however, this method moves students beyond simple memorizing. At first, students tend to be fairly mechanical about answering the questions, but later they begin to anticipate which questions will be most meaningful. When they take tests, students realize they are better prepared for higher level questions. This works well with paired courses because the students have immediate needs for studying new terms.

Format of study cards:
**FRONT:** the term, principle, or concept
  → spelled correctly
  → pronunciation given, if necessary
  → coded to the chapter and page of the text

**BACK:**
1. *What is the definition in your own words?*
2. *What is an example? (From the book, lecture, or your own – but it has to be right!)*
3. *How does it work (if it is a process)?*
4. *What does it do?*
5. *What effect does it have on other things (terms, concepts)?*
6. *What is it a part of?*
7. *What is part of it?*
8. *What is it related to?*
9. *What is it distinguished from (what isn’t it)?*
10. *What is a drawing, chart, mnemonic device, or other method you will use to help you remember it?*

**Additional Recommendations**
Collect cards for each chapter for points. After a test, point out various test questions that could have been answered by a study card. Also, acknowledge that making study cards in this format takes time, but is a good investment of time when learning the information.

This generic format can be modified to better fit particular subjects. However, the idea is the same – go beyond the definition!

**Contributor**

Linda Russell, Learning Center Coordinator, Minneapolis Community and Technical College, Minneapolis, MN (Linda.Russell@minneapolis.edu)
**Improving Memory when Reading College Texts**

**Description**
Many students read their textbooks but don’t remember much of what they’ve read. The following memory strategy has been successful with students who want to improve their memory when reading text material.

- Direct students to read one page of a textbook and then close the book.
- Then, instruct students to write down everything they can recall on a piece of paper. I tell them to write in blue ink (for example) putting information that they recall from the top of the text page in the top 1/3 of the paper and information that was somewhere in the middle of the text page in the middle to the paper and information that was near the bottom of the text page in the bottom 1/3 of the paper.
- Next, direct students to open the text to that same page and reread the page filling in any missing information using a red (or different colored) pen or pencil. Explain that they should practice this strategy daily using a new page of text that they haven’t read before. Repeat this process in class a few times just to be sure they are doing it correctly. For example, students are not expected to recall the text material word for word, but instead to remember and write important pieces of information using meaningful phrases.
- Day-by-day students should see more blue ink than red ink written on their paper. After a week or two, they should be able to recall all of the important information from one page of text quite well.
- Finally, direct students to do the activity with two pages and two pieces of paper on which to write what they recall and then fill in what they missed. Again, they should see that they are able to recall more of the information each day. Some students continue to practice and work on recalling three, four, or even five pages of text material. The number of pages will vary depending on the level of detail in the text (for example, biology will probably be more difficult to recall than sociology).

This method is effective in building memory because: 1) students develop new strategies to improve their memory of the material, and 2) students get immediate feedback on how well they are doing. Students have reported that they pay more attention when they read, mentally rehearse the information before closing the text, or even spend more time identifying main ideas and supporting details. It doesn’t really matter how they improve their memory of the material, the key is that they find a way to do it.

**Additional Recommendation**
For some students this activity is easier to do on the computer since they won’t have to space out the information that they initially recall. Instead, students can move the cursor to a spot where they want to fill in information and use a different font or color to do so.

**Contributor**
Diane Van Blerkom, Assistant Professor, Academic Support Center, University of Pittsburgh at Johnstown, PA (dvanbler+@pitt.edu)
Description
Students often attack college reading assignments by simply starting on the first page and passively reading, which usually results in poor reading comprehension. Remind students that highlighters are actually *reading tools* (as opposed to “study tools”), that are useful for maintaining focus.

The most important advice is to tell students to *always read with purpose*. This means to read in quest of answering questions. Students can look for questions in text chapters or class lecture notes. Often students need to create their own questions from chapter headings and sub-headings. In any case, reading with purpose, with criteria, is essential.

**SUPPORT ACTIVITY**
To impress the point of reading with purpose, divide your class in half.

- Direct ‘Half A’ to walk to a designated place and back again, observing their surroundings.
- Direct ‘Half B’ to do likewise, but give them 3-4 questions you will be asking when they return.
- When the class reassembles, quiz everyone on the 3-4 questions. For example: How many windows did you pass? What departments are in this hallway? How many restrooms did you see? What colors are the floor and wall?
- ‘Half B’ will get the answers correct, while ‘Half A’ will struggle.
- Now, ask another 3 new questions to the whole class.
- Once again, ‘Half B’ will score much better….even though they had no prior knowledge of these questions!

**THE STRATEGY**
When reading with purpose, we not only remember the answers to pre-questions, but we better remember the material not meeting the answer criteria because we are reading with a very specific purpose. When we read with purpose, we are actually “processing” information (that is, thinking about it) as we mentally compare what is being read to the criteria of the search, which results in better comprehension.

Students enjoy this simple activity because it is easy, physical, and effective.

**Contributor**
Elaine Wright, Director, Learning Foundations, University of Southern Maine, ME
(ewright@usm.maine.edu)
Tips for Reading College Textbooks

Description
According to study skills expert Walter Pauk, the reading of college-level textbooks is never a simple task. It demands focus and definition of actual purpose. College textbook reading demands a pre-designed reading plan appropriate to the particular subject being studied and to the particular textbook being read. The following are tips for students reading college textbooks:

**Speed**
Most readers cruise through recreational reading materials at a speed of 500 words per minute. However, readers of college texts usually slow down to 50-300 words per minute, depending on the subject matter.

You might be like other college students who become confused and distressed after spending hours reading 50-60 pages of dense text and remembering nothing! Plus, you likely have little time and patience to re-read lengthy assignments. The answer lies not in increasing your speed, but instead, in increasing your comprehension. Go for understanding, not just reading speed.

**Reading Assignments**
Never assume that instructors will go over assigned readings in class or that they will not test you on uncovered material. In college, both reading levels and expectations rise – instructors expect you to take personal responsibility for completing reading assignments.

Expect to encounter frequent reading assignments. You will have to dedicate a large portion of study time to reading in order to acquire appropriate background information for lectures. Do not avoid reading. Instead, boost your reading comprehension by designing a specific plan for approaching each college textbook. This is essential for classroom success.

**Where to Start**
Many students erroneously believe that they should approach a reading assignment by finding a comfortable seat, getting out a highlighter, and starting to read at the beginning of the chapter. Instead, successful college readers read with purpose. That is, they actively look for answers while reading; this strategy forces one’s brain to process information. In contrast, students who read unfamiliar material with no purpose and no questions in mind are reading passively – and passive readers do not remember what they read.

Start reading at the back of the chapter. Use textual aids, such as chapter questions, defined terms, or chapter summaries. Review terms and major concepts first before entering the muddy chapter waters. Also, turn subheadings into questions to use as processing guidelines.

If the text does not contain textual aids, use tips from the instructor as to what to look for. Also, pay attention to how the instructor has thematically arranged reading materials in a course.
**DO HIGHLIGHTERS HELP?**
A highlighter is a *reading tool* that helps you *to focus*; it is *not* a study tool. Drawing a yellow or blue box around unfamiliar words will not help you to remember the information. Smart readers realize the need to turn to *textual reading notes*. These are periodic, condensed notes of the reading points, usually *written in your own words*. Write the notes in text margins or in a separate notebook. Writing about what you read is a form of *processing* which will help you to better remember the information.

**READING NOTES**
Most college textbooks employ three types of text: idea-by-idea text (an argument), time-oriented text (a narrative), and space-oriented text (a description). Match how you take notes with the type of text. Although traditional outlining works well with ideas, consider using graphic notes (time lines, drawings, charts, etc.) to illustrate readings that move in time and in space. Choose a method of note taking that helps to convey relationships of one idea to another.

**READING TO REMEMBER**
Build in adequate reading time into your time management plans. You will remember more if you read *smaller chunks* on a *daily basis* than if you wait until readings pile up. Budget your reading time into short bursts; this makes the task more attractive. Furthermore, since reading is a major cornerstone of college learning, when you understand what you have read, you will remember more and maybe actually enjoy it!

**Contributor**
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(ewright@usm.maine.edu)
General Learning Strategies:

Writing Strategies
Description
In a Writing Workshop class, students share drafts of their papers with other students in order to practice identifying grammar and punctuation errors. This collaborative workshop allows students to practice their skills and demonstrate what they have learned up to this point. With this type of practice, students will be able to more quickly recognize and correct errors in their own writing.

1) Students come to class with a typed, double-spaced draft of a paragraph or short paper.

2) After students spend time self-editing their own paper (10-15 minutes), each exchanges their paper with another student.

3) Students use what they have learned and cheat sheets* to point out errors in their classmate’s paper. Students may circle or indicate the errors in the margins, but cannot correct the mistakes.

4) The two students who exchanged papers get together to discuss the errors that they found. They try to come to a consensus on how to correct the errors.

Additional Recommendations
- Prepare half-page prompt sheets to help students focus their attention on only one or two specific things they have learned up to this point. For example, a prompt sheet can describe a variety of sentence types. Later in the term, a prompt sheet might contain a list of transitional words. Also, remind students to focus on only one paragraph since the writer should be able to make corrections to subsequent paragraphs on his/her own.

- Be available to answer questions or clarify issues. Move in and out of groups to check student progress. Ask students why they circled something or how they might correct an error.

- Have a “hot seat” (at the instructor’s table) available for students who are shy about working with other students. Allow these students to collaborate with the instructor in the “hot seat.” Help the student locate his/her mistakes by raising questions? “Why is this comma here? What rules does this follow?”

- Remind students to retain all edited drafts and turn them in with their final draft. Students should get credit for this peer editing workshop.

*Note: In my class, students are given a “Cheat Sheet” very early in the term with the most common rules of grammar and punctuation listed (bright green). They use this sheet throughout the term and can use it to help in the peer-editing workshop.

Contributor
Frieda R. Campbell-Peltier, Instructor, Portland Community College, Portland, OR
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**Writing without Errors**

**Description**
Require students to write a “three-paragraph essay” (no more than one page) without a single error. Students can decide on the topic. Papers should only be evaluated on grammar, mechanics, and punctuation—not diction, which is more subjective. Points are awarded (make it a significant point value) *only if there are no errors*. Zero points are given if there is even one mistake.

Students will cringe at the thought of writing even one page without an error. However, this assignment is beneficial for many reasons:

1) In their professional careers, students will be required to produce error-free writing.
2) This exercise requires that students truly analyze their written product.
3) The instructor can provide concrete examples to students regarding the need for writing tutoring and/or another set of eyes to review papers.
4) This exercise proves that the spell check function is deficient.

**Additional Recommendation**
Give students another opportunity to turn in a revised copy of the essay for full or partial credit.

**Contributor**
Ray M. Sanchez, Learning Specialist/Tutorial Coordinator, California State University, Fresno, CA (rmsanchez@csufresno.edu)
**Description**

When students come to the Success Center for help in writing an essay, I ask: "What concerns or problems do you have?" Instead of telling me what's on their mind, they often say, "Well, I was hoping that you could tell me what's wrong and show me how to fix it." Though many new students intuitively know that they need help, because of their inexperience with writing they cannot find the words to explain the specific type of help that they need.

Since confidence comes from solving one's own problems, I ask them to take ownership of their papers by completing a brief “Writer's Self-Assessment Survey.” The survey contains 10 writing questions, such as: "Do you understand the assignment?" "Do you have problems with organization?" "Is writing a thesis statement a concern?"

By the time students have finished their surveys, they usually know what problems they will encounter. Then, at the end of the session I give students a handout, "How to Ask for and Receive Writing Feedback," to assist them with preparing for their second tutoring session.

**Contributor**

Cecilia Torres Best, Instructional Specialist, Chaffey College, CA  (Cecilia.Best@chaffey.edu)
Linking Strategies:

Learning Strategies and Mathematics Courses
Description
The purpose of this activity is to encourage students to think critically, hypothesize, inquire and make connections.

Mathematical learning occurs when students can explain and apply concepts, find examples, and make meaningful connections and comparisons for practical situations. In order to predispose students to critical thinking, instructors should solicit interpretations and supporting reasons from students. In this activity, the students apply the critical thinking skills of reflecting, hypothesizing, verifying and supporting their hypotheses with reasons.

Students complete this activity after class and discuss it during the laboratory session:

1) The instructor assigns several critical thinking questions each week.
2) Students answer the questions and provide supporting reasons for their solutions.
3) During the lab, the instructor seeks input from students to explain their answers and supporting reasons.

Additional Recommendation
Encourage students to think outside the box and to devise their own “what if” questions for other concepts/topics.

Contributor
Paola Di Muro, Learning Skills Specialist, Brandon University, Canada (DiMuro@brandonu.ca)
Solving math problems demands that students read the lines, read between the lines, and read beyond the lines. Students in a paired algebra/study strategies learning community develop metacognition by recognizing literal, interpretive, and applied comprehension levels. Students complete a 3-level reading guide on poetry, and then transfer this experience to a 3-level reading guide for a math word problem.

**Example:**

After a three-for-two stock split, each shareholder will own 1.5 times as many shares as before. If 555 shares are owned after the split, how many were owned before?

**Literal Level:** Identify the facts that will help you solve the problem.

- A stock split increases your stock.
- 555 shares are owned after the split.
- They have 1.5 times more shares than before.

**Interpretive Level:** Check any statements that contain ideas about this math problem. Use the facts you checked above to help you prove your answers.

- 1.5 is the same as 3/2.
- X should represent the number of stocks each person has.
- X should represent the number of stocks before the split.

**Applied Level:** Check the equations that will help you solve this problem: Use the facts and math ideas you checked above to help you select the equations.

- 555 - X = 1.5.
- 1.5X = 555.
- 555 - .5(555) = X.

**Additional Recommendation**

Weekly journal assignments reinforce the three levels of comprehension by requiring students to: 1) Summarize algebra concepts using course vocabulary; 2) Explain what was easy, difficult, or surprising during the week; and 3) Apply learning strategies in a different college course.

**Contributor**

Jean LaBauve, English Instructor, Spokane Falls Community College, Spokane, WA (JeanL@spokanefalls.edu)
Description
Preparation, good note taking skills, and doing homework can turn a mediocre math student into a math marvel. Once the following steps are incorporated in a student’s daily math routine, even the most complicated mathematical problem becomes learnable.

Teach students how to:
1. Prepare before class, so they have advanced knowledge of the concepts discussed in lecture.
2. Take effective notes that they analyze and summarize into pertinent steps. This makes learning and studying easier and faster.
3. Expand their understanding through practice, that is, by doing homework.
4. Review the notes and chapter immediately after class to increase understanding of the concepts.

Additional Recommendation
Teach these study strategies during the first week of class. In the next two-three weeks of class, check notebooks and give extra credit to those who complete the analysis and summary of their notes.

Contributors
Marsha Urban, Tutor Coordinator, and Sean Rivers, Lead Tutor, University of Nevada, Reno, NV (Urban@unr.edu)
**Concept Mapping and Reading Math Texts**

**Description**
Semantic concept mapping facilitates students’ conceptual understanding about a topic. The following illustrates how students in paired courses, *Developmental Algebra* and *College Study Strategies*, collaborate to identify hierarchal and sequential relationships among course vocabulary terms. Students work in groups to construct literal, interpretive, and applied meaning about course concepts. This simple classroom activity stimulates and documents students’ metacognition, providing useful formative assessment data.

**IMPLEMENTATION:** We model and teach this process early in the quarter at the end of a unit on *how to read a math textbook*. Students decide how vocabulary words relate to one another.

I. **Mini lecture on concept of mapping:** A concept map depicts relationships among vocabulary terms. Creation of a concept map facilitates both brain hemispheres, as well as visual and tactile learning preferences.

II. **Group work:**
1. Divide up vocabulary words among group members, with a 3 x 5” card for each word.
2. Write the word on the card. On the back, write a definition (in own words) & an example.
3. Explain your word(s) to your group.
4. As a group, discuss how to arrange the 12 cards into one map.
5. Draw the map (one per group) on a sheet of paper.

III. **The following map resulted from one group’s efforts:**

![Concept Map Example]

IV. **Next, students receive a list of current math terms and are directed to make individual maps as homework. Groups worked on the following in the next class session:**
DIRECTIONS FOR MAPPING ACTIVITY

1. Share each individual map within your group. (5 min.)
2. Create one group map which: integrates ideas from group members, uses all terms, shows main ideas and subordinate ideas, and shows sequence. (5-10 min.)
3. Be prepared to share your group map with the class.
4. Turn in your group map and each member’s individual map.

Rubric for group points:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>/1 follows group process</td>
<td>/1 shows main ideas &amp; subordinate ideas</td>
</tr>
<tr>
<td>/1 integrates ideas from members</td>
<td>/1 shows sequence</td>
</tr>
<tr>
<td>/1 uses all terms</td>
<td>/5 TOTAL</td>
</tr>
</tbody>
</table>

V. Example of a group map:

**WHY IT WORKS:** Creating a semantic concept map helps students visualize the relationships among course vocabulary. This simple process facilitates both brain hemispheres and uses visual and tactile learning preferences. Also, when students collaborate to create a map, auditory processing modalities are stimulated.

Creation of a map helps students move beyond literal, word-for-word recall of course vocabulary and toward summarizing concepts in their own words. The map clarifies hierarchical and sequential relationships among concepts, aiding interpretive and applied levels of comprehension.

A concept map organizes information similar to a neural network; ideas are interconnected and stored based on prior knowledge. Thus, learners articulate and verbalize their metacognition, providing the instructor with an instant assessment tool. The map indicates how well students understand relationships among terms and how well they apply concepts to solve math problems.

**Contributors**

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Linking Strategies:

Learning Strategies and Social Science Courses
Description
In an effort to integrate textbook reading for developmental students enrolled in *Reading 110* and *Sociology 101*, I give structured learning strategy models to guide their reading. One such strategy is based on the nine principles of culture included in their sociology textbook. I direct students to read, write (explain/summarize), think critically, collaborate, and make connections between the textbook and their own lives. This learning strategy serves as a model when students develop their own strategies for application to other chapters. Also, it provides an opportunity for short oral presentations of cultural principles. Ultimately, students take responsibility for their own learning.

**COLLEGE READING & STUDY SKILLS – CHAPTER 3: “CULTURE”**

**GROUP COOPERATIVE PROJECT:** Cultural Principles - due in class:

**GROUP MEMBERS:** *Place an asterisk beside the name of the group presenter(s).*

**DIRECTIONS:**
1. Define Culture:
2. Identify the Cultural Principle assigned to your group:
3. Explain the assigned Cultural Principle:
   a. Define the Cultural Principle assigned to your group. Do this in your *own words* by paraphrasing or summarizing what you read in your textbook.
   b. Give at least one *example* from your *textbook* that helps to clarify your group’s Cultural Principle. Also, as a group, think of an *original example* that helps to clarify your Cultural Principle.
   c. Define any *additional terms* specific to your group’s Cultural Principle.
4. List questions any member of the group may have about your assigned Cultural Principle.

**Contributor**

Ruth A. Britton, Department Chair of Developmental Reading & English/ESL and Instructor of Developmental Reading, Cochise College, AZ (lbritton5@mindspring.com)
Description
My developmental reading and study skills course is paired with a three-credit Introduction to Social Science course. Early in the semester, I use an excerpt from the course textbook, Through the Global Lens: An Introduction to the Social Sciences by Michael J. Strada (2nd ed.), to illustrate how to effectively mark textbooks. My aim is to show students how to avoid excessive highlighting, as well as how to select the most essential words to study within the highlighted sections.

I use a nine-paragraph, 790-word passage containing material likely to appear on the first exam in the social science course.

Students have a copy of the passage, which I have typed with the same number of words per line as in the textbook and show on the classroom document camera. I highlight only 184 words, or 24% of the passage, representing key phrases rather than entire sentences. As we read the passage, students highlight their copies.

Next, I circle the most essential words within the highlighting, which total 67 words, or 8% of the passage. Again, students do the same. Then, I read the circled words, adding just a few articles, verbs, and conjunctions to create simple sentences. This illustrates to students how to study the most essential information in this passage.

Finally, I ask students to read the circled words aloud, in the same manner, to a partner.

On the students’ copies, I note the number of words in the entire passage, the number and percentage of words they highlighted, and the number and percentage of words that they circled. This is a powerful illustration how to avoid over-highlighting and how to reduce a long passage to the most essential information.

Additional Recommendation
Early in the semester, professors of courses with high freshman enrollment provide sample pages from a text chapter on which they have highlighted key sentences or phrases and circled the most essential words within the highlighted sections.

Contributor
Sharon Green, Reading Coordinator, Office of Academic Support, Niagara University, NY (sgreen@niagara.edu)
Description
My developmental reading and study skills course is paired with a three-credit *Introduction to Social Science* course. A professor for the course lectures in a traditional format, outlining her lecture on the board. The freshman students dutifully copy her outline, though many write little else since they are unsure of what to add. Since some of the exam questions do come from information that the professor presents but doesn’t write on the board, I videotape a segment of her lecture (with her permission) and present this activity:

1. I show the tape to my students, asking them to take notes as they would in class. As expected, their notes mimic what the professor wrote on the board.

2. I distribute a set of detailed notes that I took while listening to the lecture.

3. I replay the video and ask students to highlight everything in my notes that the professor did not write on the board. This constitutes about 40% of my notes.

4. Students compare my notes with their notes. This vividly illustrates what students need to add to their notes and points out the importance of capturing what the professor says.

Additional Recommendations
Although I taped a 50-minute lecture, I use only fifteen minutes of it for this in-class activity. Similar tapes could be on reserve in the library or in the Learning Assistance Center for students who desire additional practice. Students still struggling with note taking could watch the entire video outside of class and compare their notes with a full set of notes that have been prepared in advance. A reading instructor or tutor could periodically pause the tape to check the student's notes.

Contributor
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**Using Technology for Critical Reading of Linked Course Information**

**Description**
Students rely more and more on the Internet for content information and for completing assignments. In the following activity, students apply critical reading as they learn course content. In paired courses, students complete the activity for the “skills” class as a complement to the content-area course.

1. Students search the Internet for a site about “Evaluating Web Sites.” I recommend using [www.google.com](http://www.google.com) as the search engine. Students take notes on the evaluation criteria for the critical reading of Internet sources. Examples include: [http://gateway.lib.ohio-state.edu/tutor/les1/index.html](http://gateway.lib.ohio-state.edu/tutor/les1/index.html) and [www.library.jhu.edu/researchhelp/general/evaluating/#List](http://www.library.jhu.edu/researchhelp/general/evaluating/#List).

2. Students then find a web site with information on a topic they are studying in the paired content course. For example, if the course is paired with economics, topics could include “macroeconomics,” “models of capitalism,” or “Samuel Gompers of the Cigar Makers Union.” Students evaluate this site according to the evaluation criteria.

3. Students present the site orally to the whole class using a computer projection system or from a computer lab. Students must present a critical analysis of the site while presenting the content material. They write a three-paragraph essay on this analysis, which they give to the instructor of the “skills” class.

**Additional Recommendations**
Students can provide a handout on the content topic for classmates to use when studying for the exam. Also, this assignment can be staggered (7 students each week presenting their Web site) in order to cover more topics from the content course.

**Contributor**
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Linking Strategies:

Strategies for Successful Learning Communities
**Two-Stage Testing Process**

**Description**
Use the two-stage testing process when you do not have time to fully cover a concept. Explain this to students in advance.

1. Give individual students the test.
2. Form students into working groups as they turn in their tests. (So they can’t collaborate and plan for one member to "throw" their score and can’t avoid people they prefer not to work with!)
3. Next, give each group the same test to complete together.
4. Take half of the difference between the group average and the group test score and add that to their individual score.

Using this testing process, students are assessed on what they know individually, as well as what they collaborate on and learn from each other. Furthermore, test anxiety is reduced because students know they can rely on help from their group. This is a “learning goal” method rather than a “performance goal.”

**Contributor**
Shawn Bixler, Interim Coordinator, Reading and Study Skills Division, Department of Developmental Programs, The University of Akron, OH (sbixler@uakron.edu)
Recognizing Behaviors of At-Risk Students

Description
Show students a transparency with the list of behaviors provided below. Give each student several small stickers to place next to any behaviors they perceive to be indicators of a student who is at risk of leaving school. Students may place stickers next to behaviors chosen by others.

Discuss their choices. In general, every other behavior is a flag for a student who could be considered “at risk.” Thus, while there are reasons why someone might be “Leaving alone every day at the end of class,” or “Sitting alone in the back of class,” these behaviors in combination with other behaviors signal that a student is not engaged in the class.

Conversely, someone might defend “Asking a classmate for his or her phone number” as being “too social” and not “school-focused.” Explain that the item is considered positive because it indicates the student is making a connection and, as a result, is more likely to come back!

The positive behaviors are reported in retention research as those of successful students. They describe students who are involved socially and academically with other students, who are engaged in campus activities, and who make the best use of campus resources.

In a learning community students are asked to raise their awareness not only of their own challenges, but also of their peers in the community. This activity leads to a discussion about what students can do for each other to help everyone in the class feel connected and committed.

Which of these behaviors describe a student at risk of leaving school?

- Not talking with anyone before or after class.
- Initiating introductions with classmates.
- Sitting alone in class, often in the back of the room.
- Sitting near the front of class among other students.
- Wearing earphones during class.
- Complimenting another student’s clothes.
- Not participating in class discussions.
- Asking the first question in class.
- Resisting (or sabotaging) collaborative activities.
- Joining a classmate for coffee after class.
- Leaving the class alone.
- Asking a classmate for his or her phone number.
- Having no means of contacting classmates outside of class.
- Inquiring whether the campus has a tutoring lab.
- Not using college support services.
- Forming a study group.
- Studying alone excessively.
- Offering another student a ride.
- No one in class knows why the student is absent.
- Joining a campus organization.
- Not participating in campus activities.

Contributor: Maggi Miller, Senior Consultant, College Survival/Faculty Programs, Houghton Mifflin Co. (Maggi_Miller@hmco.com)
Supplemental Instruction and Paired Courses

Description
Students in the Student Support Services Program (SSSP), a federally funded TRIO Program for first-generation, low-income and disabled students, are enrolled in a non-credit, semester-long study skills or critical reading course paired with history or social studies. The study skills instructor attends the academic course lectures, liaisons with the instructor, and conducts modified Supplemental Instruction (SI) in the study skills class one day a week. This SI differs from the national model in that it is the instructor, not a peer, who attends the class. Also, attendance at SI is not voluntary for students.

The advantage is that students not only receive instruction in study strategies, they see the strategies modeled, and have guided practice in applying them directly to a credit-bearing course.

Additional Recommendations
Since SSSP students are at very high academic risk, individual sessions with peer tutors or the instructor are recommended for students who continue to have difficulty dealing with course content. Also, additional test preparation sessions should be made available on a voluntary basis.

Contributor
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