

Supplemental Instruction Leader Handbook

Spring 2012

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Sharon Daegling, FIPSE Grant Coordinator

Nina O'Connell, Supplemental Instruction Coordinator

Aileen Morehead, MSLC ISAI III

Bri Hays, Research Analyst

Introductory Information

For Fall 2011, SI at Delta College is funded by a FIPSE Grant

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What Is SI?

SI is a unique academic intervention begun in the 1970's at the University of Missouri-Kansas City. It is designed to support group learning and strengthen students' academic learning skills. The theory behind this academic support intervention is that individuals learn best through discussing course content and sharing their understanding of concepts. In other words, learning is seen as a social construct. Learning strategies are emphasized to help students build a foundation to support the language and concepts used in the classroom. Students are then better able to apply and extend those concepts in their coursework.

What Are The Goals Of SI?

The goals for SI include improved student success and retention in the course and higher student persistence in courses needed to complete their program and/or degree. In addition, we look for students to develop effective learning strategies and study skills. Our goal is to help them with the courses they are currently enrolled in and the completion of their educational goals.

How Does SI Work?

SI works through student leaders who have previously done well in the course and been referred by the instructor. The SI Leader receives training in the SI model, attends classes on a regular weekly basis, leads discussion sessions attended voluntarily by students, and interacts with the course instructor to ensure accurate and timely coverage of course content. The SI Leader is responsible for providing handouts and activities at every SI session that focus on specific learning strategies enabling students to learn independently. SI Leaders also meet regularly with an SI Coordinator to share experiences and insights with other SI Leaders and to ensure that the program itself retains its consistency and quality.

What Does An SI Leader Need To Do?

As an SI Leader, you are required to do several things. Each is described below. The purpose of these controls is to provide a safe and secure working environment for the SI Leaders as well as to maintain communication between all groups (leaders, instructors, students, and coordinator).

- At the beginning of the semester:
 - Complete all paperwork required by the FIPSE Grant and the SI Coordinator
 - Confirm with Sharon Daegling how many hours you are scheduled to work per week
 - Confirm your SI session location with Aileen in the MSLC
 - Time cards are kept in the top file drawer of the cabinet behind Rene's desk

- Always bring your attendance sheets to your SI session; they are kept in your folder
- Meet with your SI course instructor to discuss course content and learning strategies
- Prepare an introductory 2-3 minute question-answer session for students in the course
- Survey students in the first week of class to determine the best day/time for SI sessions
- Turn in your SI session schedule to Aileen, Nina, and Sharon
- For weekly record-keeping:
 - Time cards for SI sessions, planning hour, instructor conferences, SI training
 - Check your attendance sheets to make sure everyone signed in
 - You will receive new attendance sheets reflecting add/drops after the census date
- To prepare for an SI session:
 - Attend class regularly (individualized schedules)
 - Meet with your instructor regularly
 - At least once a week, plan an activity and/or a handout that focuses on a learning strategy students can use to organize or master the content
 - Check your understanding of the content and any assignments students are currently working on before going into the session
- In the SI session:
 - Ask students what they remember about the lecture. List it on the board and squeeze as much detail as you can from the students. SI sessions are not a substitute for class attendance, and this is a good way to assess who is and isn't attending class.
 - Set an agenda for the session. Find out from students what topics they most want to discuss. Make a list on one side of the board so everyone knows what the plan is.
 - Vary the way you lead discussions and ask questions in each session. Mix it up so students don't fall into roles they can't get out of during the semester, i.e. some always answer while others always blend into the background
 - Make use of the specific learning strategy handout you prepared. This is one of the key features of Supplemental Instruction. We are not here to recycle the class lecture. We are here to help students find ways to study, review, and assess their own understanding of the course content
- After the SI session:
 - Write up a quick 5-minute recap of your session. These will be kept in a binder along with a copy of your SI session handout for students. They will be used to plan training and for evaluation of the SI Leaders.
 - Ask your instructor immediately if there is an assignment or content you aren't sure about
 - If you have any concerns or questions about anything related to your SI assignment, contact the SI Coordinator, instructor, or other key people.

SI Leader Observations

SI Leaders are observed each semester using the form below. The purpose of the Observation is to ensure the goals of the program are being met. To review, SI Leaders cover both content and learning strategies. Overall, we are trying to develop independent learners. To gain independence, students must learn how to acquire information efficiently and accurately, they must know how to review and practice specific content information, and they must learn how to assess their own mastery of the information. These three skills describe what it means to use learning strategies. The SI Leader Observation will provide us information on how well you are doing in mixing content review with using learning strategies.

SI Observation Record B

Observer: _____ SI leader: _____

Date: _____ Course: _____ Number Attending SI: _____

Activities

Introduction to SI session, Participation Log, Materials used by SI leader, Activities in the session, Evaluation used (e.g., quiz, oral recall), Closure of session.

Observer's Comments

SI Observation Record A

Observer: _____ SI leader: _____

Date: _____ Course: _____ Number Attending: _____

Qualities	Satisfactory	Need for Improvement
Room arranged for group work (circle or semi-circle)		
Session beginning on time		
Participation Logs filled in		
SI leader prepared		
Planning the SI Session sheet available		
Agenda set at beginning of session		
Advanced Organizer used		
Students doing most of the talking (helping each other)		
Varied interaction patterns present (diagram below for illustration)		
Effective use of questions (open-ended, higher-level)		
Leader uses appropriate Wait-Time		
Leader redirects questions, when appropriate		
Appropriate processing activities used		
If available, were the worksheets helpful?		
Students referring to text books and notes		
Leader involves all students		
Leader addresses students' needs and questions		
Leader knowledgeable of content material		
Leader set appropriate tone for session		
Time managed efficiently during session		
Summary and Closure		
Students seemed to gain understanding		

Additional Comments:

The rest of this packet provides you some introductory resources on learning skills and strategies. A.k.a. study skills. The reason I have included these is to make sure everyone knows what learning strategies are. Please take some time to familiarize yourself with some of the most common strategies below.

What are Learning Strategies?

Learning strategies are used by students to help them understand information and solve problems. A learning strategy is a person's approach to learning and using information. Students who do not know or use good learning strategies often learn passively and ultimately fail in school. Learning strategy instruction focuses on making the students more active learners by teaching them how to learn and how to use what they have learned to solve problems and be successful.

One strand addresses **how students acquire information**. It includes strategies for learning how to paraphrase critical information, picture information to promote understanding and remembering, ask questions and make predictions about text information, and identify unknown words in text.

A second strand helps students **study information once they acquire it**. It includes strategies for developing mnemonics and other devices to aid memorization of facts as well as strategies for learning new vocabulary. These strategies help prepare students for tests.

A third strand helps students **express themselves**. It includes strategies to help students write sentences and paragraphs, monitor their work for errors, and confidently approach and take tests.

No single strategy is a panacea. For example, we have reading strategies that help students figure out what a word is, comprehend what they're reading, acquire vocabulary, and understand the structure of text. All of these strategies are essential for a well-integrated, balanced reading program. Likewise, an array of strategies in other areas is necessary for student success.

For more, see: Center for Research on Learning, University of Kansas, Learning Strategies <http://www.kucrl.org/sim/strategies.shtml>

Besides working with students on various learning strategies, SI Leaders and tutors will also work to encourage higher levels of thinking in their students. Critical thinking skills are sequential and build upon each other. The best model of critical thinking skills is Bloom's taxonomy. Your first task is to identify what level of thinking the student is using. From there work consistently to guide the student to move towards the next higher level. Bloom's taxonomy is included below so you can become familiar with characteristics and vocabulary of the different levels.

Critical Thinking Skills

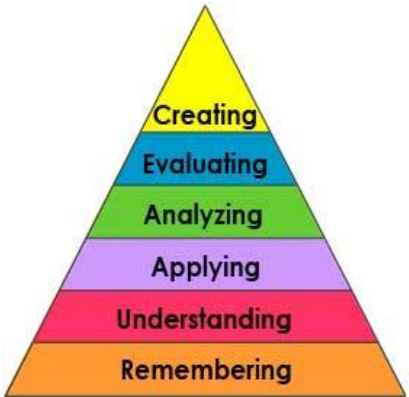
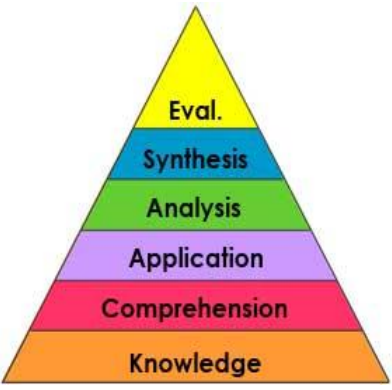
Definition of:

Critical thinking is that mode of thinking - about any subject, content, or problem - in which the thinker improves the quality of his or her thinking by skillfully taking charge of the structures inherent in thinking and imposing intellectual standards upon them.

<http://www.criticalthinking.org/aboutCT/definingCT.cfm>

Notice the reference to active thinking in the definition (taking charge). With frequent and consistent practice in manipulating information, students can learn to “skillfully” take charge of their learning. One way to structure your messages to students regarding different types and levels of thinking is to familiarize yourself with Bloom’s taxonomy reproduced below:

Bloom's Taxonomy

 <p style="text-align: center;">New Version</p>	<p>In 1956, Benjamin Bloom headed a group of educational psychologists who developed a classification of levels of intellectual behavior important in learning. During the 1990's a new group of cognitive psychologist, lead by Lorin Anderson (a former student of Bloom's), updated the taxonomy reflecting relevance to 21st century work. The graphic on the left is a representation of the NEW verbiage associated with the long familiar Bloom's Taxonomy. Note the change from Nouns on the right to Verbs on the left which describe the different levels of the taxonomy.</p> <p><i>Note that the top two levels are essentially exchanged from the Old to the New version.</i></p>	 <p style="text-align: center;">Old Version</p>
<p>Remembering: can the student recall or remember the information?</p>	<p>define, duplicate, list, memorize, recall, repeat, reproduce state</p>	
<p>Understanding: can the student explain ideas or concepts?</p>	<p>classify, describe, discuss, explain, identify, locate, recognize, report, select, translate, paraphrase</p>	
<p>Applying: can the student use the information in a new way?</p>	<p>choose, demonstrate, dramatize, employ, illustrate, interpret, operate, schedule, sketch, solve, use, write.</p>	
<p>Analyzing: can the student distinguish between the different parts?</p>	<p>appraise, compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, question, test.</p>	

Evaluating: can the student justify a stand or decision?	appraise, argue, defend, judge, select, support, value, evaluate
Creating: can the student create new product or point of view?	assemble, construct, create, design, develop, formulate, write.

Courtesy of: **Richard C. Overbaugh, Lynn Schultz, Old Dominion University**
http://www.odu.edu/educ/roverbau/Bloom/blooms_taxonomy.htm

Also see: [Michael Pohl's Website about Bloom's Taxonomy](#) and [Example of Questions](#) at different levels

Taxonomy Self-Questioning Chart


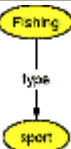


Level of Thinking	Comprehension Statement	Focusing Question
Creating	I have created new knowledge.	How has this author changed what I understand?
Evaluating	I can critically examine this author's message.	How has the author's perspective influenced what he/she tells me?
Analyzing	I can take my understanding to a deeper level.	How is this similar to (or different from) other material I've read?
Applying	I can use my understanding in some meaningful way.	How can I connect what this author is telling me to understand something better?
Understanding	I can understand what the author is telling me.	What does this author want me to understand?
Remembering	I can recall specific details, information, and ideas from this text.	What do I need to remember to make sense of this text?

Doug Buehl (2007)

<http://www.weac.org/graphics/2007-08/sept07/readingroom.jpg>

Graphic Organizers

Graphic organizers are valuable tools for teaching/instruction. Unlike others, graphic organizers demonstrate a flexibility and endlessness in choices of use. A common trait is their ability to show the order and completeness of the student's thought process - how s/he understands becomes clearly evident. Using a range of graphic organizers shows both the close-up and the larger picture. Since many graphic organizers use short words or phrases, they are ideal for many types of learners including those for whom English as a second language.

	Describing	Comparing Contrasting	Classifying	Sequencing	Causal	Decision Making
 <p>Webbing</p>	Brainstorming Web Money Web	Double Cell Diagram	Hierarchy Diagram Research Cycle Cluster Diagram Desktop Folder System		Squirrels Web	
 <p>Concept Mapping</p>	Concept Map	Simile - School is..				
 <p>Matrix</p>		Venn Venn Expanded Comparison Matrix			KWHL	Thinking grids
 <p>Flow Chart</p>			Desktop Folder System	Linear String Expanded Linear String Dominoe Effect		

Some more forms: Clock, Cluster/Word Web, Describing Wheel, E-Chart, Fact and Opinion, Five W's Chart, Flow Chart, Four-Column Chart, Garden Gate, Goal-Reasons Web, Hierarchy chart, Ice-Cream Cone, Idea Rake, Idea Wheel, , Inverted Triangle, ISP

Chart, KWHL Chart, KWL Chart, KWS Chart, Ladder, Observation Chart, Persuasion Map, Planning Chart, Problem Solution Chart, Progress Report, Sandwich, Sense Chart, Sequence Chart, Spider Map, Step-by-Step Chart, Story Map 1, T-Chart, Think-Pair-Share, Ticktacktoe, Time Line, Time-Order Chart, Tree Chart, Venn Diagram.

<http://www.graphic.org/goindex.html>

Memory and Mnemonics

Students should be familiar with the difference between short-term, working, and long-term memory. Short-term memory is limited in size and duration – most of us can remember a 7-digit phone number for just a few minutes before we need to write it down or we forget it. Working memory contains items we are currently processing in our brain, but once we move onto another task, that information must be specifically and consistently recalled before it enters our long-term memory. Another interesting fact is that all information first enters the brain through the limbic center which is associated with emotion. That's why certain traumatic or otherwise emotionally-meaningful events can stay with us whether we like it or not. Some educators have tried to build on this by designing lessons which are more emotionally appealing or meaningful than more traditional lecture-based lessons.

Use these tools to refine your study habits.

Memory Principles

Quick Reference Guide for Brain Compatible Learning Principles

Below is a list of memory or learning principles with a brief definition of each. Click on the principle for students' notes and what brain research has discovered.

Making an Effort to Remember

- **Interest**--The brain prioritizes by meaning, value and relevance. To have meaning, you must understand what you are learning. In order to remember something thoroughly, you must be interested in it and think that it has value and relevance in your life.
- **Intent to Remember**-- Your attitude has much to do with whether you remember something or not. A key factor to remembering is having a positive attitude that you get it right the first time. Attention is not the same as learning, but little learning takes place without attention.
- **Basic Background**--Your understanding of new materials depends on what you already know that you can connect it to. The more you increase your basic knowledge, the easier it is to build new knowledge on this background.

Controlling the Amount and Form

- **Selectivity**--You must determine what is most important and select those parts to begin the process of studying and learning.
- **Meaningful Organization**--You can learn and remember better if you can group ideas into some sort of meaningful categories or groups.

Strengthening Neural Connections

- **Recitation**--Saying ideas aloud in your own words strengthens synaptic connections and gives you immediate feedback. The more feedback you get, the faster and more accurate your learning.
- **Visualization**--The brain's quickest and probably the longest-lasting response is to images. By making a mental picture, you use an entirely different part of the brain than you did by reading or listening.
- **Association**--Memory is increased when facts to be learned are consciously associated with something familiar to you. Memory is essentially formed by making neural connections. Begin by asking, "What is this like that I already know and understand?"

Allowing Time to Solidify Pathways

- **Consolidation**--Your brain must have time for new information to establish and solidify a neuronal pathway. When you make a list or review your notes right after class, you are using the principle of consolidation.
- **Distributed Practice**--A series of shorter study sessions distributed over several days is preferable to fewer but longer study sessions.



The information on this page is from [Practicing College Learning Strategies, 3rd edition](#) by Dr. Carolyn Hopper published by Houghton Mifflin, 2003

Here are a few more specific examples of memory techniques.

Improve Your Memory

Some students find that using particular memorization tactics can improve their memory.

Here are a few of the popular memorization strategies.

- **Acrostics:** Acrostics are phrases or poems in which the first letter of each word or line functions as a cue to help you recall the words that you are trying to remember. One popular example is the phrase "Every good boy does fine". This acrostic is used to remember the order of musical notes on a musical scale.
- **Acronyms:** Acronyms are words formed out of the first letters of a series of words you are trying to remember. A popular acronym is "Roy G. Biv" which is used to remember the order of colors of the spectrum (Red, Orange, Yellow, Green, Blue, Indigo, and Violet).
- **Narrative:** Some find making up a story with the lists of words throughout the narrative aids retention.
- **Rhymes:** Remember the phrase "i before e except after c"? You probably remember this well because it is a rhyme. Rhyming can enhance retention as well.
- **Imagery:** There are two methods of imagery which enhance retention of material.
 - One involves **LINKING** items together visually in your mind. For example, if you have a list of groceries such as cereal, milk, toilet paper and tangerines, you might try visualizing a dairy cow eating cereal under a tangerine tree wrapped in toilet paper. Believe it or not the more bizarre the image, the more likely you are to remember it.
 - The second method is called the **METHOD OF LOCI**. This involves taking an imaginary walk in your mind through a familiar path along which you associate items you are trying to remember. For example, you may take the same grocery list and place the items (visually in your imagination) throughout your room. The tangerine may be the doorknob as you open the room, the cereal appears on the TV, the milk is hanging from the ceiling fan and you may envision a large roll of toilet paper in place of the chair at your desk.

http://www.coedu.usf.edu/zalaquett/Help_Screens/study_skills.htm

Notetaking to Gather Information

There are various notetaking methods of which the most familiar is Cornell Notes. An example is pasted below. Take time to discuss notetaking with your students. Notes are the first step in their learning process and must be clear and organized. Students usually think they are satisfied with their notes until they are asked to retrieve some information from them. Try this in one of your sessions. Have an example of good notes available for comparison. Let students see the difference between jumbled notes and clear ones.

Attendance Forms

Please have students sign in at every session. Students should sign their time in and time out.

SI Leader: _____ Sections: 46916, 94326 Week(s): _____ Instructor: _____												
Students: Please write your time in and time out next to your name under the appropriate column below. We collect SI attendance for research purposes only. We do not report individual SI student attendance.												
			Day:		Day:		Day:		Day:		Day:	
No.	Last Name	First Name	In	Out	In	Out	In	Out	In	Out	In	Out
1												
2												
3												
4												
5												
6												
7												

Time Cards

Please fill out your time card after every SI session and place in your folder in the MSLC.

SI Leader Time Sheet

FIPSE funded

Semester _____
 Instructor _____

Name _____
 ID # _____

Pay Period _____ to _____

*Purpose	Hours
Session	Week 1 _____
Class	Week 2 _____
Office	Week 3 _____
Planning	Week 4 _____
Training	Week 5 _____
Total Hours	_____

I acknowledge that the information above is true and correct.

Signature _____
 Date _____

Week # 1 Ending Date _____


Date	Start	Stop	Hours	Purpose*	LC Initials

Week # 2 Ending Date _____

Date	Start	Stop	Hours	Purpose*	LC Initials

Once a month, sign a completed a SJDC Timecard

JOB TITLE _____ **SHORT-TERM HOURLY TIME REPORT** **DEPARTMENT** _____



San Joaquin Delta College

NAME _____

DELTA MUNIS ID# _____

UNITS: FALL _____ SPRING _____ SUMMER _____

REPORTING PERIOD _____

FOR OFFICIAL USE ONLY

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	

TOTAL HOURS	KUALI ACCOUNT NUMBER	<p>I Here Certify That This Time Report Correctly Reflects All Time Worked and Absences For The Pay Period Indicated.</p> <p>_____</p> <p style="text-align: center;">Signature of Employee</p> <hr/> <p>I Here Certify That The Above Is A True Statement Of The Hours Worked By The Employee And That The Employee Performed In A Satisfactory Manner.</p> <p>_____</p> <p style="text-align: center;">Signature of Immediate Supervisor</p> <p style="text-align: right;">_____</p> <p style="text-align: right;">Signature of Division Dean or Manager</p>
	Org: _____ City: _____	

Time sheets must be filled out completely, signed by Division Dean or Administrator/Supervisor in charge, and submitted to Payroll Department, San Joaquin Delta College, 5151 Pacific Ave., Stockton, CA 95207, unless told to do otherwise. It is the responsibility of the Division Dean to meet due dates.

SI Session Recap and Planning Information

Below is a form to capture the contents of your SI Session as well as a brief description of your planning activities. Please complete after every session and place in your folder in the MSLC along with your time card and attendance sheets.

Quick Recap of SI Session

Course: _____ SI Leader: _____ Date: _____

Specific Topic	Specific Difficulty for Students

Learning Strategy Discussed: _____

(Organizing Your Notes, Using a Graphic Organizer to show relationships, Highlighting Main Ideas Only, Using Common Abbreviations, Mnemonics)

Planning Time Description: Met with course instructor ____ Met with Grant/SI Coordinator ____

Reviewed course materials _____ Developed SI session handout (attached) _____

Planning Time Used (e.g. 10 min, 30 min, 1 hour, etc....none) _____