Si Motto:

Tell me, and I forget,
Show me, and I remember,
Involve me, and I understand.

- Chinese Proverb
Supplemental Instruction (SI) is a service mark of the University of Missouri at Kansas City. A license may be granted to registered Certified Trainers and others upon written request to use the term Supplemental Instruction in association with educational programmatic approaches to enhance student academic development. This license is not transferable and does not apply to the use of the service mark in any other programs or on any other literature without the written approval of the University of Missouri at Kansas City.
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>7</td>
</tr>
<tr>
<td>Introduction to Mentoring</td>
<td>9</td>
</tr>
<tr>
<td>SI Mentor: Duties and Responsibilities</td>
<td>10</td>
</tr>
<tr>
<td>Mentor Guidelines: A Checklist</td>
<td>11</td>
</tr>
<tr>
<td>Breaking the Dependency Cycle</td>
<td>12</td>
</tr>
<tr>
<td>Observing the Sessions</td>
<td>15</td>
</tr>
<tr>
<td>Observation: An Overview</td>
<td>16</td>
</tr>
<tr>
<td>Observation: Guidelines</td>
<td>17</td>
</tr>
<tr>
<td>Recording Observations</td>
<td>18</td>
</tr>
<tr>
<td>Redirecting Questions</td>
<td>19</td>
</tr>
<tr>
<td>Wait-Time</td>
<td>21</td>
</tr>
<tr>
<td>Planning with the SI Leaders</td>
<td>23</td>
</tr>
<tr>
<td>Planning the SI Session</td>
<td>24</td>
</tr>
<tr>
<td>Advanced Organizers</td>
<td>25</td>
</tr>
<tr>
<td>Formal Definitions</td>
<td>26</td>
</tr>
<tr>
<td>Matrices</td>
<td>27</td>
</tr>
<tr>
<td>One-Minute Paper</td>
<td>28</td>
</tr>
<tr>
<td>Post-Exam Survey</td>
<td>29</td>
</tr>
<tr>
<td>Reciprocal Questioning</td>
<td>30</td>
</tr>
<tr>
<td>Think-Pair-Share</td>
<td>31</td>
</tr>
<tr>
<td>Questions for SI in Mathematics Courses</td>
<td>32</td>
</tr>
<tr>
<td>Question Group Protocols: Multiple Choice Exams</td>
<td>33</td>
</tr>
<tr>
<td>Advertising and Marketing the SI Session</td>
<td>34</td>
</tr>
<tr>
<td>Advertising/Marketing the SI Session</td>
<td>35</td>
</tr>
<tr>
<td>Bookmarks</td>
<td>36</td>
</tr>
<tr>
<td>Labels</td>
<td>37</td>
</tr>
<tr>
<td>Exam Results Memo</td>
<td>38</td>
</tr>
<tr>
<td>Special Situations</td>
<td>39</td>
</tr>
<tr>
<td>Frequently Asked Questions</td>
<td>40</td>
</tr>
<tr>
<td>Case Studies</td>
<td>41</td>
</tr>
<tr>
<td>Forms</td>
<td>42</td>
</tr>
<tr>
<td>SI Observation Record A</td>
<td>43</td>
</tr>
<tr>
<td>SI Observation Record B</td>
<td>44</td>
</tr>
<tr>
<td>SI Debriefing Sheet</td>
<td>45</td>
</tr>
<tr>
<td>Compliance Report</td>
<td>46</td>
</tr>
<tr>
<td>Goal-Tracking Sheet</td>
<td>47</td>
</tr>
<tr>
<td>Mentor/Supervisor Evaluation</td>
<td>48</td>
</tr>
<tr>
<td>Mid-Term Evaluation of SI Sessions</td>
<td>49</td>
</tr>
<tr>
<td>Time Sheet</td>
<td>50</td>
</tr>
<tr>
<td>Time Sheet Justification</td>
<td>51</td>
</tr>
<tr>
<td>Appendices</td>
<td>52</td>
</tr>
<tr>
<td>Memo of Agreement to Faculty</td>
<td>53</td>
</tr>
<tr>
<td>Center for Academic Development Organizational Chart</td>
<td>54</td>
</tr>
<tr>
<td>Center for Academic Development Telephone List</td>
<td>55</td>
</tr>
<tr>
<td>SI Organizational Chart</td>
<td>56</td>
</tr>
<tr>
<td>Fax to Police</td>
<td>57</td>
</tr>
<tr>
<td>Implementation Report</td>
<td>58</td>
</tr>
</tbody>
</table>
Preface

April 2003

Here at UMKC, we have staff members and a group of experienced SI leaders (Mentors) who supervise our SI sessions. We rely upon the Mentors to help with the on-going training of new SI leaders as well.

Because the Mentors and Supervisors observe first-hand what is happening in the SI sessions, they often are an excellent source of issues that need to be stressed in the training workshop and in the on-going training of SI leaders. When it comes to observing sessions, they asked for more detailed instructions than the verbal instructions we give them in the SI Training Workshops. In order to help them do their jobs better, we developed the Mentor Manual. You will notice that there are sections defining the role of the Mentor as well as sections to help them observe the SI leaders and help the leaders plan the sessions and market the SI program. In addition, there is a section on special situations that Mentors may encounter when supervising the SI leaders. Finally, all the forms that our Mentors need on our campus are included as well as several forms they should be aware of but may not need to fill out themselves. Obviously, these forms need to be modified for your own campuses, but we include them as examples of the forms that Mentors need to do their jobs.

As soon as the first edition of the Mentor Manual was off the press, we realized that we wanted to add to it substantially in order to emphasize the learning strategies that we found work best in SI. By including more of the learning strategies in the SI leader training and supervision, we hope that we can improve the interaction patterns in SI sessions and reduce the occurrence of default modes such as question-and-answer. The Mentors also felt that the most common reason that SI sessions do not go well was that the leaders do not know how to plan the sessions as well as they should, so we enhanced the section on planning. The learning strategies have been included in the Planning section because it is at this level that Mentors and Supervisors can be of most help to the leaders. Also, we wanted to be more explicit about the definitions, rationale, and exercises needed for training SI leaders. For example, we felt that adding a section on breaking the Dependency Cycle would help remind the SI personnel of one of the goals of SI: developing independent learners.

Whether or not you use Mentors in your SI program, we think that this revised manual will help you train your pertinent SI staff to become the best possible support service for students.

Those who helped improve the manual in this second edition are Mentors Mark Burnett, Gülbanu Gökbülüt, Sanjeev Nagaraudi, Sergio Requena, Jessica Shoop, and the Assistant SI Coordinator, Amelia McDaniel. The current edition is built on the shoulders of the first edition that was developed by the UMKC Mentors of Winter Term 2002: Amelia McDaniel, Valerie Duff, Robin Hamilton, Tony Lawson, Kint Malhi, Sonny Painter, Joe Vincent, and the Center for Academic Development Staff supervisors Linda Carter, Kay Patterson, Kathy Phillips, and Sydney Stansbury.

And, thanks to Sonny Painter and Amelia McDaniel for formatting the manual and generally making it attractive. A big thanks to Amelia again for her good proofreading of the manual. Those of you reading this manual in Spanish can thank Sergio Requena and me for the translations.

Without the encouragement and helpful suggestions from Dr. Glen Jacobs, the Director of the International Center for Supplemental Instruction, this project would not have come about.

Sincerely,
Sandra Zerger, Ph.D.
Editor
Introduction to Mentoring

SI Mentor: Duties and Responsibilities
Mentor Guidelines: A Checklist
Breaking the Dependency Cycle
SI Mentor: Duties and Responsibilities

Each SI leader has access to an SI Mentor.

Three principle functions:
1. Support and consult with SI leaders
2. Be the link between SI leaders and the SI Supervisor
3. Complete the following administrative functions:
   - Tracking of Participation Log and attendance
   - Tracking marketing efforts
   - SI observations
   - SI debrief
   - Outreach
   - Miscellaneous

Meeting Attendance:
- Weekly Mentor meetings
- Bi-weekly SI team meetings
- Weekly meeting with assigned SI leaders

Session Observation and Evaluation:
Mentors will attend at least one session facilitated by each assigned SI leader per week for the duration of the semester. The Mentors will schedule a weekly appointment with each SI leader for discussion and feedback. The objectives of observing and debriefing an SI leader’s session include:
- to provide the SI leader with session feedback
- to develop the confidence of the SI leader
- to develop his or her strengths and to stimulate improvement by focusing on the positive
- to assist SI leader in monitoring SI attendance
- to perform outreach and marketing efforts
- to ensure compliance with paperwork requirements (Planning the Session, Participation Log, exam scores)

Periodic Attendance of Course Lectures:
Mentors are encouraged to attend a minimum of 3 course lectures for each assigned SI leader in an effort to enhance their ability to understand the requirements of the course, the style of the lecturer, and to assist the leaders in planning appropriate session activities.

Strategy and Resource File:
SI leaders are encouraged to share their ideas with their colleagues. A resource file is maintained in the SI office in which copies of handouts, old exams, quizzes are kept for each class. Mentors will assist the SI leaders in utilizing the files for SI session preparation, and ensure that new material is added to the files regularly.
Mentor Guidelines: A Checklist

First Days
- Come to training; help with the training as requested by SI Supervisor. Meet the SI leaders you will be supervising.
- Listen to the Introductory Speech and help the SI leader personalize it and tailor it to their class.
- Make sure that the SI leader has met with the course instructor before the course begins.
- Go to the first lecture of the course with the SI leader.
- Help the SI leader pass out the Beginning of Term Survey.
- Help the SI leader analyze the surveys, select session times, and request rooms.
- Attend the course lecture 3 times in the first month.
- Help the SI leader plan the sessions.
- Help the SI leader fill in the Planning the SI Session Sheets.
- Help the SI leader plan an initial note review for one of the first sessions.
- Go to SI sessions, observe, and debrief. (See pages on Observation and Debriefing.)
- Fill out timesheet and Time Justification Sheet.
- Make sure SI leaders are handing in the Participation Log and Planning the SI Session sheets weekly. (Check with the SI Supervisor for compliance.)

Several Weeks into the Semester
- Make sure SI leaders understand the exam result analysis.
- Make plans according to feedback from exam result analysis.
- Make sure SI leaders are advertising sessions (bookmarks, notes, overheads)
- Make sure SI leaders are meeting with faculty.
- Plan with SI leaders.
- Supervise each SI leader's sessions at least once a week.
- Check interaction patterns in sessions.
- Check for Wait-Time.
- Check for a variety of techniques.
- Make sure SI leaders are not skipping lectures or sessions even though they are busy.
- Make sure that SI leaders remind professors to hand in exams scores to SI Supervisor.
- Make sure SI leader communicates exam result analysis to class and to professor.
- Conduct Mid-Term Survey for feedback on how sessions are going.
- Consider changing times/days of underutilized sessions.
- Hand in names of good, potential SI leaders for next term.

End of Semester
- Collect summer contact information from SI leader.
- Thank professor for his/her support.
- Conduct End-of-Term Survey.
- Ensure that SI leader turns in all surveys, Participation Logs, Planning the SI Session sheets, and textbooks/supplies.
- Plan early for final examination review sessions.
- Celebrate together—go for coffee.
Breaking the Dependency Cycle

Definition and Rationale:
One of the goals of SI is to foster independent learners. The Dependency Cycle (sometimes called “learned helplessness”) is a pattern of learned behavior that allows students to remain dependent upon the authority figure (professor or tutor) for learning. Often we foster dependency by relying too heavily on repetition, drill, and memorization. Without structuring, categorizing, and other forms of manipulation of information, students will fall back onto a mode of memorizing isolated facts—a very time-consuming and ineffective way of learning large amounts of meaningful information. As illustrated below, in many large, lecture classes, students are told information by the professor.

Here are the failed processes that perpetuate the dependency cycle:

• Tell them.
• Tell them again.
• Tell them more slowly.
• Give them something shiny with which to play.

Some students will learn via this format because they already have the sophisticated learning strategies that allow them to convert information into meaningful knowledge. Others, especially students new to a discipline, will have problems, so they will ask a question, which may lead to their being told again, perhaps more slowly the second or third time. Eventually, if these students do not do well in the course or in their overall schooling, we may shunt them off to a remedial program or put them someplace and give them a shiny toy to play with so they will not interrupt the rest of the students. Their failure in one situation may lead them to feel like they cannot learn new, complicated information at all. **Our job in SI is to help students use new learning strategies, so they are less dependent on being told information.** Some students who have experienced a continuing history of failure or a recent cycle of failure may believe that they lack the ability to succeed. Brophy¹ found that highly successful teachers (or SII.s) implement strategies to help students overcome this “learned helplessness” or Dependency Cycle by engaging in supportive behaviors, providing reassurance, and making personal appeals to students to improve performance. They de-emphasize activities that promote competition and comparison and emphasize non-evaluative strategies and cooperative strategies, such as matrices, reciprocal questioning, and Think-Pair-Share.

Breaking the Dependency Cycle (cont.)

To Break the Dependency Cycle:

- Tell them.
- Get them to tell each other.
- Get them to tell you again.

Dweck and Elliott suggest the following behaviors that help to break the Dependency Cycle and also can be applied to SI:

1. SI leaders should act more as facilitators (or sources of information and strategies) than as judges.
2. SI leaders should focus more on learning processes than on outcomes.
3. SI leaders should react to errors as natural and useful parts of the learning process rather than evidence of failure.

---

Observing the Sessions

Observation: An Overview
Observation: Guidelines
Recording Observations
Redirecting Questions
Wait-Time
Observation: An Overview

Listed below are some of the typical considerations a Mentor/Supervisor of SI may take into account when observing a session.

1. Body language
2. Clarity of speech
3. Opening of session
4. Use of Advanced Organizers
5. Amount of time SI leader talked vs. amount of time students talked
6. Number of closed-ended questions vs. number of open-ended questions
7. Number of times questions were/were not redirected back to group
8. Pauses and Wait-Time: number and how handled
9. Reinforcement of student responses
10. Use of examples for clarification
11. Note processing
12. Use of textbook
13. Closing of session

What behaviors seem most important to you?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
Observation Guidelines

1. Schedule an Appointment
Prior to the start of the term, (e.g. during the SI leader Training Workshop), or, at the latest, during the first week of the term, arrange to meet with the SI leader to discuss what you will be looking for when you observe the sessions and what your general style of observation is (e.g. if you see something that could be helpful during the sessions, how will you approach it?). Be sure to allow the leader an opportunity to voice any of their concerns.

Quick comments immediately after the session are helpful, but you should schedule a regular, short (30 minute) weekly meeting during the term to discuss how things are going and to help the leader plan their sessions.

2. Allow the SI Leader to Speak First
The SI Mentor/Supervisor first should elicit the leader’s reaction to the sessions. After this discussion, the Supervisor can share his or her perceptions. Objective observational data are important to the session. The SI Mentor/Supervisor should limit the criticisms to two or three suggestions. Others can come later. Many of the observations or reactions will be similar.

3. Plan Together: AID

Analyze
Describe and discuss the recorded observations: 1. Body language and eye contact. 2. Clarity of speech. 3. Opening of the session. 4. Amount of time leader talked vs. amount of time students talked. 5. Number of closed-ended questions vs. open-ended questions. 6. Number of times questions were redirected back to group. 7. Pauses and Wait-Time: number and how handled. 8. Reinforcement of student responses. 9. Use of examples for clarification. 10. Note processing. 11. Use of textbook. 12. Closing of session. 13. Other techniques addressed in training.

Interpret
Look for probable causes (both positive and negative) for the observed effects. For example, the SI Mentor/Supervisor may make repeated observations that the leader is dominating the sessions. The leader may recognize that this is a weakness and an area where improvement can be made. It is also possible that the leader believes that he/she has a reason why this is happening. Depending upon the reason expressed, plans for the future changes may vary.

Decide
Decide what elements of the session could be changed or improved and which elements are effective and should be continued. Agree to change only a few elements at a time. Do not overwhelm a leader by trying to change everything radically at once.

4. Provide Closure
Be supportive and offer direction. Offer to assist the leader to develop ideas and design handouts. Don’t simply agree that something should be changed and leave the leader to figure it out. Make him/her aware that this is a collaborative process. Make notes of the key portions of the meeting on the Goal Tracking Sheet. Give a copy of the notes to the leader. Use the notes to further discussion and measure improvement at subsequent meetings.
Recording Observations

In order to improve the effectiveness of sessions, it is sometimes helpful to focus on the communication patterns that occur during the sessions. One characteristic of effective SI sessions is that students interact primarily with each other rather than always directing their conversations and comments to the SI leader.

Procedure 1:
1. On a blank piece of paper, represent SI session participants in the same relative positions as they are sitting in the room.
2. As students interact with each other or the SI leader, draw a line connecting them with the person to whom they are directing their comments. Do not be concerned about neatness or that overlapping lines make it difficult to provide an exact count. This is only intended to provide a visual aid for discussion.
3. After the SI session, share the chart with the SI leader and discuss why the pattern of interactions occurred. If necessary, suggest strategies that encourage students to interact with each other.

Below are sample charts of interactions of an SI session. In session #2, the interactions within the group are directed among the students. In session #1, the interactions are heavily directed to the SI leader.

![Session #1](diagram)

![Session #2](diagram)

Procedure 2:
Record interactions by listing the order in which the SI leader and the students talk. Use “L” for leader and “S<sub>i</sub>” for student one, “S<sub>2</sub>” for student two, and so on.

```
  L
S<sub>1</sub>
  L
S<sub>2</sub>
  L
S<sub>3</sub>
```

versus

```
  L
S<sub>1</sub>
  L
S<sub>2</sub>
  L
S<sub>3</sub>
```

This procedure can be used for more sophisticated recordings as well:
- Recording questions, responses: L<sub>q1</sub>, S<sub>r1</sub>, S<sub>r2</sub>
- Recording actual questions asked: L: “What’s the concept behind this formula?”
- Recording wait time, with a dot used for each second: L…, S.L.S.L.
Redirecting Questions

Description:
Redirecting questions can be considered the process most central to the Supplemental Instruction program. The process itself is fairly simple to understand but difficult to practice without a context in which to do so. The goal of this process is to encourage more and better student-to-student interactions in the sessions. It is based on the concept that we all learn better when we have to explain something to someone else. The natural tendency for anyone is to answer questions asked; this process requires the leader to suppress that tendency and redirect questions back to the group. Perhaps it is easier to illustrate this process with a few examples:

Sample Interactions:

Student to SIL:
Who came up with the law of relativity?

SIL:
Does someone have the answer to this question?
[Resist the natural urge to provide a quick answer, so you can go on with more complex questions. Redirect back to the group to avoid a Question-Answer session.]

Student to SIL:
What is the derivative of a constant?

SIL:
Can anyone find an answer to that in your notes/text?
[Use the resources that students have. Useful when it is obvious that students don’t know the answer. Makes students think for themselves and process the material in a way that will be helpful for them.]

Student to SIL:
I don’t understand how temperature affects a chemical reaction.

SIL:
I’m glad you brought that up! Why don’t we analyze #5 on the handout to see if we can understand how temperature affects different reactions? Let’s see if we can come up with the reasons by the end of the session. [Remember to use responses that offer positive reinforcement. Leaders often will anticipate problem areas and have sample problems on a handout. A useful handout may structure the answers and list steps.]

Student to SIL:
I don’t know how to do this problem.

SIL:
What part(s) of the problem do you understand?
[This will help narrow the question and divide it up into more useful parts.]

Student:
I understand how to get the derivative, but I don’t know what to do next.

SIL:
Would someone please go to the board and scribe as we work it together? Or: Would someone please put what you have for this problem on the board?
[Note: This interaction demonstrates that there may be a two- or three-phase process. SI leaders get questions redirected back to them, for example. In that case, help the students to structure the problem, redirecting as you go.]
Redirecting Questions (cont.)

Additional Sample Phrases:
What is this question asking for?
Why are you thinking of it in that way?
Give an example of that.
Can you summarize the discussion up to this point?
Can you think of another way to think about this?
How is your answer (point of view) different from _____?
Let's rephrase it on the board and figure out what information we will need to answer it.
Can you be more specific?
How does your response tie into _____?
Let's look that up in the text.
Let's write down everything we know about this topic/problem/theory.
How can you relate this to everyday life?
Okay, that's the book definition, but how do we define that (i.e. in your own words)?
So, how do you think you can redirect questions?

Practice Exercise
1. Have each participant write down a question that could be asked in a session for his/her discipline.
2. Make sure that the group is in a circle to avoid even this practice exercise's evolving into a mini-lecture.
3. Select one participant to take the role of an SI leader.
4. Have the participants ask the questions they have written down.
5. Have the leader redirect the questions to the group. Group members should answer as naturally as possible.
6. After several exchanges, change who is taking the role of the leader and repeat the process.

Discussion and Debrief:
1. How does this process attempt to break the Dependency Cycle?
2. Map the interaction patterns that occurred during this exercise (see p. 18). Discuss how effective the interactions were in promoting student learning. [See Observation Records A and B on pp. 48-49 for examples of interaction patterns to look for.]
3. What would you do if the response by the student after the leader's redirect were "If I knew how to do this problem, I wouldn't have come to SI!"?
4. Make sure you are redirecting the right questions. Can you give an example of a redirection that shows that the leader misunderstood the question?
5. Are there some questions that should not be redirected? Give an example.
6. Give an example of an additional sample phrase for redirecting questions.
Wait-Time

Definition¹:
Wait-Time is the time that elapses between an SI leader-initiated question and the next behavior (student response or the leader talking again).

There are two kinds of Wait-Time:
(1) The time the leader waits after asking a question
(2) The time the leader waits after a response

Rationale:
Wait-Time is an important factor in successful SI sessions. Extensive research has demonstrated that the quality and quantity of students' verbal responses increases significantly if teachers (SI leaders) regularly utilize at least three seconds of Wait-Time. Wait-Time (2) seems to be even more significant than Wait-Time (1). So, once again, if SI leaders resist the natural temptation to jump in too quickly to answer a question or rephrase, student learning improves. Increased Wait-Time probably allows the brain more opportunity to consolidate information, which allows for deeper processing of information. According to de Jong and Ferguson-Hessler², deep-level knowledge is associated with comprehension, abstraction, critical judgment, and evaluation. Deep-level knowledge “has been thoroughly processed, structured, and stored in memory in a way that makes it useful for application and task performance” (107).

Research findings³:

For Students:
1. More students answer
2. More accurate answers
3. Answers are more elaborate, reasoned, and supported
4. Listen to each other more
5. More speculative responses
6. More questions asked
7. More participation by poorer students
8. Increase in use of logical consistency in responses

For SI leader:
1. Asks fewer questions
2. Connects questions better
3. Asks more higher-order questions
4. Demonstrates greater flexibility
5. Expects more from poorer students

Wait-Time (cont.)

Strategies for Higher-Order Questions:
SI leaders should write down in advance (on the Planning the SI Session Sheet) higher-order questions to ask, along with the predicted responses. This will allow them to develop some follow-up or probing questions. The questions leaders ask should provide a model for students of the kinds of questions to ask about a certain body of information—setting a high expectation for students’ responses. Leaders may need to ask intervening sequences of more specific, factual questions to help students recall relevant data, recognize pertinent relationships, and make informed inferences—all part of thinking about an answer to a higher-order question.

When Students Don’t Respond:
SI Leaders may worry about what to do if no one responds. After waiting 5-10 seconds with no responses, they may want to try one of the following:

- Repeat the question
- Rephrase the question
- Simplify the question
- Ask a student to attempt to rephrase the question
- Break down the question into its component parts
- Make the question more specific
- Ask students what it is about the question they do not understand

After each alternative, wait 5-10 seconds.

Practice Exercise:
1. What can you as an SI leader do if no one answers a question?
2. Write one possible question from your discipline to actually demonstrate the technique. Write down several anticipated responses.
3. Use the Think-Pair-Share technique with the others in the group using the question you just wrote down in #2. [See Think-Pair-Share on p. 33.]

Planning with the SI leaders

Planning the SI Session
Advanced Organizers
Formal Definitions
Matrices
One-Minute Paper
Post-Exam Survey
Reciprocal Questioning
Think-Pair-Share
Questions for SI in Mathematics Courses
Question Group Protocols: Multiple Choice Exams
Planning the SI Session

SI Session date ______________________  SI Leader ______________________

Course Instructor ____________________ Course Name ______________________

Objective: What does this group most need to accomplish in this session?

Beginning reminders:
1. Arrange seats in a circle
2. Hand out Participation Logs
3. Set agenda with group
4. Remember to relax and be flexible!

<table>
<thead>
<tr>
<th>Content to cover:</th>
<th>Processes to use*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Possible processes to use: Informal Quiz, Matrix, Reciprocal Questioning, Paired Problem Solving, Turn to Your Partner, Note Processing, Problem Solving Rubric, Formal Definitions (or ID's), Text Review (Divide and Conquer), Pictorial Representations, Sequencing, Informal Quiz

Possible closure technique: Predict next lecture, Summarize session, Informal Quiz, One-Minute Writing

After session comments/thoughts:


Advanced Organizers

**Definition**¹:
Advanced Organizers are tools or methods that help students connect new information and concepts to existing knowledge. These take many forms; they may be short sets of verbal or visual information presented before learning a content or a brief introduction about the way that information is going to be structured or presented.

**Rationale:**
Advanced Organizers help students understand, learn, organize, and remember large volumes of material by allowing them to preview the information to be learned. The intent of an Advanced Organizer is to present context (not content) with conceptual frameworks (not specific detail). Advanced Organizers are presented prior to learning and at a higher level of generality than the rest of the session. They are always specific to the discipline of the SI. Advanced Organizers are especially effective for unfamiliar, technical, or difficult material.

**Some Types of Advanced Organizers:**
1. Charts
2. Diagrams
3. Brief explanations
4. Concept maps
5. Demonstrations

**Examples:**
1. Give the reasons for the Revolutionary War before studying its major battles and personnel. (*In general, identify a problem and ask for a reason before giving the reason.*)
2. Offer picture of different types of geometric forms before discussing their individual likenesses and differences. (*Go from known to unknown.*)
3. Provide a brief abstract paragraph with an outline of new information.
4. Give a scenario and ask students to infer rules based upon their current knowledge.
5. For the topic of the structure of state government, review the structure of the federal government studied earlier. (*Bridge to previous knowledge.*)

**Practice Exercise:**
Develop a possible Advanced Organizer for your next SI session.

Formal Definitions

The clearest and most precise way to define is the formal or analytical method. (Other methods include synonyms, examples, etymology, and lexical definition—all of which possess an inadequacy or hazard of some kind from which the formal definition is free.)

The formal definition consists of three parts:

1. The term-to-be-defined (a word or phrase).
2. The class term—the class to which the term-to-be-defined belongs.
3. The limiting term or terms—the characteristics which distinguish the term-to-be-defined from the other members of the class to which it belongs.

Pointers for effective definition:

1. In writing definitions, avoid using "is when," "was when," or "was where."
   Incorrect: A garage is where automobiles are kept or repaired.
   Correct: A garage is a building in which automobiles are kept or repaired.

2. Avoid presenting your own opinions or feelings about the word when you define it.
   Incorrect: Cadillacs are rich people's cars that..."

3. Avoid using the same word in your definition as the one you are trying to define.

4. Avoid using negatives in your definition unless the negative feature is the only way to define the word.

5. Avoid cutting off the definition after you name the general group (class term) to which the word belongs.

Examples:

Mania is an affective disorder characterized by extremely high levels of mental and physical activity.

Psychic illness is a hypothesized disease of the psyche or of psychological functioning which is thought by some to be at the root of maladaptive behavior.

Deviance is behavior that violates social norms and expectations.
Matrices

Rationale and Description:
A matrix is a chart with columns and rows used to compare or contrast two or more subjects. It is an excellent way to organize information in order to learn large quantities at a time because it allows students to differentiate groups, characteristics, features, as well as tie together items that may at first seem unrelated. Matrices are most helpful when students must relate several subjects and their various characteristics.

Experts have developed organizational structures they use to store vast quantities of information into meaningful units, thus allowing them to learn and remember more information than beginners can. According to de Jong and Ferguson-Hessler¹ a hierarchic knowledge structure is highly suited for retention of knowledge, for quick and efficient search purposes, and for fitting new elements of knowledge into the existing knowledge structures (108). The type of structure that contains abstract and general concepts at a higher level is typical of experts in a field.

How to Create Matrices²:
1. Usually, the subjects (groups) go in the columns (↓) and the categories (features, characteristics) go in the rows (→).

<table>
<thead>
<tr>
<th>Group A</th>
<th>Feature A</th>
<th>Feature B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group C</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Identify the subjects (groups) to be compared or contrasted. Write one subject on each row.
3. Identify the categories (features, characteristics) of information to be discussed. Write one category at the top of each column.
4. Complete the matrix by writing key words in each box where columns and rows intersect.
5. Make sure to title the matrix. (Sometimes students know the material of the matrix but forget the source or author of the theory embodied in the matrix and if the professor ask a question such as: “According to Piaget… students may fail to retrieve all the information they have on the topic.”)

❖ Identify Subjects and Label Rows

Since matrices are designed to compare or contrast information for two or more subjects, begin by identifying the number of subjects. Sometimes the subjects are grouped together in the information you have read. Other times, you may need to think through the information you have read to identify subjects for comparison or contrast. Once you have identified the number of subjects, you can begin to make the rows. If you have two subjects, you will need two rows. Write the name of one subject on each row.

Matrices (cont.)

Identify Categories and Label Columns:

Identifying categories requires you to think carefully about the information you have read. What categories of information were discussed for all or most of the subjects? The number of categories you select determines the number of columns in your matrix. Label the top of each column.

If you have difficulties finding appropriate labels for the columns, try using this approach to help you organize important information for the matrix:

1. List each of the subjects across the top of a piece of paper.
2. Under each subject, list important details associated with that subject.
3. Look at the list of details. Can the details be grouped into larger categories?
4. If you see a logical category of information under one subject, is that same kind of information also given for the other subjects? If so, you have discovered an appropriate title for a category.

Using Matrices in the SI Session:

1. The SI leader should have a good idea what the matrix should look like in its completed form, including the title, headings and categories, but should not come into the session and give it to the students completed. The value of the matrix is in the processing of the information to form the matrix.
2. At times, the students in the sessions will come up with better headings or characteristics to be compared than the SI leader does. Rejoice in their ideas rather than snubbing them!
3. The hardest part for the SI leader will be to get students to come up with the information that goes in the headings of the rows and the columns. An initial question to get it started could be: “What groups/differentiations are there for this topic?” Then: “What features or characteristics could we list that would compare the groups?”
4. At the beginning of the semester, the leader may want to help by offering one or more headings to get things started. Or, the leader may draw a blank chart without the headings to indicate how many categories will be compared. Later in the semester, a simple clue such as, “Can we organize this information in a chart/matrix?” should suffice.
5. For some disciplines, an incomplete matrix (one in which random subject/feature cells are filled in) may be helpful for organizing types of problems, organizing raw data, or reviewing for tests.
6. The matrix does not need to be filled in completely during the session in order to be of value in learning the information. The leader may offer to look over completed matrices at the next session if students want that help.
One-Minute Paper

Definition:
A One-Minute paper is just that: writing for one minute on a question or topic given by the SI leader. It is not graded and is not meant to be a polished piece of writing.

Rationale:
One-Minute papers give feedback to the leader about how well the students understand a topic. They also help students realize what they know or do not know through writing about it. The process of writing helps stimulate thinking processes, sharpen prior thinking, and focus thinking.

When to Use:
1. At the beginning or during the session to stimulate discussion. The writing helps students formulate responses in private, so they are more confident to express an opinion to the group.
2. During the session to assess how well students are learning.
3. At the end of the session to see how well students understand and to direct planning for the next session.
4. During a discussion to re-direct it if it seems to be taking off in several directions.2 (See #5 below for an example of this use.)

Possible Questions for a One-Minute Paper:
1. What was the most important thing you learned today?
2. What questions remain?
3. Give a one-sentence summary: Who did what to whom? For whom, when, where, how and why?
4. Come up with an application in an everyday setting for the concept we've just been discussing.
5. Relate this issue to a current event in national or international news.
6. Write either what you saw as the main threads of the discussion or where the discussion may most profitably go.

Exercise:
Write one additional question that would be good to use as a One-Minute writing exercise in your SI sessions.

---

Post Exam Survey

Score Yourself in Terms of Preparation for the Exam

<table>
<thead>
<tr>
<th></th>
<th>Did</th>
<th>Did Not</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>I read the material when assigned.</td>
<td>7</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>I read the regular textbook and <em>understood</em> this material adequately.</td>
<td>7</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>I read the supplemental textbook and had a good understanding of it.</td>
<td>12</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>I reviewed the readings carefully before the exam.</td>
<td>4</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>I have good, complete notes, and when I review them, I can understand them.</td>
<td>24</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>I studied my notes thoroughly before the exam (until I knew them well enough that I could have told someone what was in them). Just reading through them is not a good score.</td>
<td>24</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>I attended lecture regularly. (missed 2 to 3 times = 0)</td>
<td>12</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>I attended SI sessions. (1 or 2 times = 1; regularly = 8)</td>
<td>10</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>Add up your score.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Editor’s Note:* I observed a humanities class in which the professor read these questions to the class before he handed back the exam. He had them score themselves. Then he told them that the score they gave themselves should be the score on they received on the exam—big sighs! He handed back the exams and asked them to raise their hands if their survey score was more than five points higher than the exam score; surprisingly, only a handful raised their hands. So, it appeared that they had answered honestly on the survey. If their score on the exam was lower than five points from their survey score, he asked them to come see him so they could talk about study strategies.
Post Exam Survey (cont.)

Definition and Rationale:

The post exam survey is a self-test for students to assess how successfully they studied for an exam in a specific course. This survey originally was given by a professor in a humanities class before the exam was returned to the students. The survey also can be used in an SI session after an exam to target areas on which students need to improve or in an SI Leader Training Workshop to stimulate a discussion comparing and contrasting discipline-specific learning strategies.

Procedure:

To use in an SI session:
1. The SI leader tailors the example survey by thinking through all items necessary to obtain a perfect score on the exam the students just completed.
2. The leader reads each item orally to the students in the SI session and has them rate themselves.
3. The students add up their scores and discuss how close their survey score was to their exam score and why there were differences.
4. The SI leader may want to share these categories with the professor.

To use in an SI Leader Training Workshop:
1. SI leaders read through the sample Post Exam Survey.
2. Each SI leader writes down the categories she/he believes are necessary to score 100% on an exam in the specific course section.
3. Leaders weight each category in terms of importance so that they add up to 100 points.
4. The leaders get into discipline groups.
5. Individuals share the categories with the group.
6. Each disciplinary group shares the categories with the whole group. Compare and discuss the differences by discipline.
Reciprocal Questioning

Definition and Rationale:

Reciprocal Questioning is an alternating question-and-answer process that aids students in a deeper understanding of content (an assigned reading or specific material for an exam review). The leader allows the students to ask questions of them first, and then the leader asks the students' questions.

This procedure improves students' questioning and reasoning strategies as well as their reading comprehension. It emphasizes modeling of thinking as it pertains to questioning and answering skills and gives students the opportunity to practice these skills in an environment where they will not be graded.

Procedure:

- **Prepare the strategy:**

  1. Select a brief but important section of the textbook or reading (4-5 paragraphs).
  2. Prepare ten to twelve varied questions over the material (factual, inference, application, or evaluation). Include at least one question that requires the students to make a prediction based on the material (e.g. Where is the author going with this topic?).

- **Implement the strategy:**

  1. Introduce the strategy saying, “Here is a strategy that I think will help you improve your understanding of the material. Read this selection to understand it 100%. After you have read it, I will turn over my paper and you may ask me as many questions as you can think of. After you have asked all your questions, you will turn over your papers and I’ll ask you questions.”
  2. When students ask a question that extends beyond the text, model your thinking for the students. If you do not know an answer, it is okay to tell them you do not, but then model how you would think about it and where you would go to find out about it.
  3. When students have finished asking their questions, begin by asking questions for which there are direct references in the text. If, for example, no one asked the meaning of a specific word, ask to make sure everyone understands its meaning. Then move on to more sophisticated questions.
  4. When you answer a higher order question, it is appropriate to ask the student or the group for input. [See Supplemental Instruction Supervisor Manual on higher-order questions.] For instance, you may say, “Is that what you had in mind?” or “Did someone think of a different response?”
  5. Make sure that students state their questions clearly. Help them frame the questions, if necessary, but do not answer questions that are poorly articulated even if you can figure them out. Rather, help to formulate better questions through modeling and by asking them to rephrase a poorly stated question.
Reciprocal Questioning (cont.)

- Debrief the strategy:

1. After the material has been reviewed thoroughly by the alternating questions of the leader and the group members, the leader should lead a discussion about what kinds of questions were asked. Or, a group member can be assigned at the beginning to be an observer who records all the questions asked. The observer, then, acts as the leader of the debriefing.
2. By the middle of the semester, the group should be able to observe that different kinds of questions are being asked by the group—more of the higher-order questions.

Uses:

1. To introduce a topic.
2. To review before an exam. In this case, you may eliminate the reading, but you still will alternate asking possible test questions. In this context, the strategy helps organize the time so that both students and the leader are asking questions. One way to ensure a fair distribution of time is to set a timer. When it rings, reverse who is asking the questions.
Think-Pair-Share

Rationale:

This technique helps the leader use Wait-Time effectively and helps break the Dependency Cycle. It also structures the group in a way that helps avoid the question-answer interaction pattern—(question from leader, answer from student, another question from leader and answer from student, and so on). It models in-depth questioning, allowing students to consolidate information and think more in-depth about the concepts under discussion.

The Procedure:

1. One person asks a question to the whole group. (May begin with the SI leader’s asking the first question.)
2. Students listen to the question.
3. The leader asks that students think individually about the question. Students are not permitted to converse or volunteer to talk but are encouraged to write down or diagram their thoughts.
4. At a designated time, students form pairs and exchange ideas.
5. Pairs share with the whole group. (Don’t leave out this step, or the session will become individual peer tutoring.)

Exercise:

Use the questions below to practice the Think-Pair-Share technique:

1. Why is step #4 above important?
2. What is the best movie you have seen this year?
Questions for SI in Mathematics Courses

1. What is happening in the lectures in the course? According to Peak (1996), math courses can be taught emphasizing concepts or skills.
   a. Emphasis
      - Is the emphasis on thinking about and coming to understand mathematical concepts? For example, with this emphasis, the professor would:
         i. Pose a complex thought-provoking problem.
         ii. Allow students to struggle with the problem.
         iii. Encourage various students present ideas or solutions to the class.
         iv. Start class discussion about the various solution methods.
         v. Summarize the class' conclusions.
         vi. Assign students similar practice problems.
      - Is the emphasis on having students acquire particular skills? In this context the professor would:
         i. Instruct students in a concept or skill.
         ii. Solve example problems with the class.
         iii. Require students to practice on their own while he/she assists individual students.\(^1\)
   b. Participation: Does the professor encourage participation/questions in class?

2. What is the nature of the feedback to the students?
   - Are there quizzes? How often?
   - How many examinations are there?

3. Is the homework required? What percentage of the final grade is it?

4. If homework is required, how is it graded?
   - Are points given for homework questions only if the answer is correct?
   - Is there credit given if parts of the problem-solving process are correct even if the final answer is incorrect?

5. What is happening in the SI sessions?
   - What techniques is the SI leader using?
   - How do the techniques correlate with what is happening in the lectures (See question one above.)
   - What has the SI leader included on the Planning the SI Session sheets?
   - How much variety is there in the techniques he/she is using?

6. Who is going to SI?
   - How do those students compare with those who are not going?
   - What is the difference in the past performance of the students who attend versus those who do not?
   - What prerequisite courses have the students had who are attending versus those who are not?

7. What other kinds of support systems are in place? (Graders? TA's? Tutors?)

---
Question Group Protocols: Multiple Choice Exams

Basic Question Handling Techniques

1. Cover answers (foils)—Owner reads the question.
   - All students re-phrase question, using notations, drawings, etc.
   - Owner re-states question. (Identify exactly what is being asked.)
   - Check for group agreement.

2. Everybody writes down prediction(s) for answer.

3. Owner discusses prediction. (Use drawings, notations.)
   - Group discusses; adds comments; shares drawings.

4. Everybody looks at foils—Select 1st and 2nd choice.
   - Record on Data Sheet along with +/- (for confidence level, 1st choice).

5. Owner discusses all foils.
   - Group discusses.

6. SI Leader may give correct answer.

7. Students identify and record reason for error (non-content).
   - Share reasons among group.

   Examples:
   - Misread question
   - Misread foils
   - Wrong choice between two because _______
   - Didn't trust my judgment
   - No notations to help focus

8. Volunteer looks up answers or items that are unclear.

1 Copyright by Institute for Professional Preparation. The University of Missouri-Kansas City. May 2002.
Advertising and Marketing

Advertising/Marketing the SI Session
Bookmarks
Labels
Exam Results Memo
You may need to help the SI leaders in their efforts to advertise the sessions. Help them make bookmarks, labels, overhead transparencies, or other aids.

Bookmarks templates with graphics for the various disciplines are available in the SI office. These bookmarks are easily created using columns in Microsoft Word. The SI leader will need to fill out a Print Order Form, also located in the SI office, and submit it to Roo Prints (Royall Hall 102). Bookmarks are printed three to a page, so remind the SI leaders to divide the number of pages needed by 3. Also, remind them that they must request cardstock, or they will get colored paper but in typing paper weight. Last, be sure they get their Print Order Form signed by a qualified staff member and request Roo Prints to cut them (or they’ll have to cut them all by hand!).

Labels for the laser printer are available in SASS 210. These labels can be used to stick on notebooks or inside the textbook. Templates are available in Microsoft Word on any computer in the SI office.

Overhead transparencies (or regular paper when using a document camera) are useful for showing the class the results of exam scores and for advertising concepts that will be covered in the next week’s sessions. They should include the exam score analysis chart (SI v. Non-SI mean grades), the concepts to be covered in the next session, and all of the session times/days/locations. The leader should arrive early and put the overhead up before class, so the students can see it as they come in. This prevents the instructor from shortening the lecture for SI announcements while still allowing some advertisement of the SI sessions.

Following are some examples of these kinds of advertising.
SI for American History

Tuesday 11-12
EDU 33

Wednesday 1-3
EDU 36

Thursday 11-12
EDU 33

Friday 2-3
SASS 206A

SI Leader
Stephanie Cary
scary@xyz.org

SI for American History

Tuesday 11-12
EDU 33

Wednesday 1-3
EDU 36

Thursday 11-12
EDU 33

Friday 2-3
SASS 206A

SI Leader
Stephanie Cary
scary@xyz.org

SI for American History

Tuesday 11-12
EDU 33

Wednesday 1-3
EDU 36

Thursday 11-12
EDU 33

Friday 2-3
SASS 206A

SI Leader
Stephanie Cary
scary@xyz.org
Want to study with your friends? Come to SI in Biology 108 with Stephanie Cary!

Mon 3-4p    RH 202
Tues 8-9a   RH 212
Thurs 7-8p  HH 313
Fri 11a-12p SASS 206A

Everyone is welcome!
Exam Results Memo

TO: Calculus II Students

FROM: Sonny, SI Leader

RE: Exam Results

Here are the results from the first two exams. You can see the average score for the students who did not attend SI (20 students) for the first exam is sixty-six percent. There were eight students who attended SI before the first exam, and they averaged eighty-one percent.

On the second exam, eighteen students who did not attend SI averaged forty-two percent, and the seven students who attended SI averaged sixty-eight percent.

I hope you can see that the SI sessions can be helpful. I will soon be scheduling review sessions for the next two exams. If you need help, please feel free to contact me. The regularly scheduled SI sessions appear below:

Monday 9-10 am HH 314
Tuesday 12-1 pm SASS 206 A
Wednesday 1-2 pm HH 314

![Graph showing exam results]
Special Situations

Frequently Asked Questions
Case Studies
Frequently Asked Questions

What is included in monitoring/supervising SI sessions?
1. Go to class with the SI leader during the first part of the academic term.
2. Go to SI sessions—frequently at the beginning of the term and once a week thereafter throughout the term.
3. Hold individual conferences with the SI leaders weekly.
4. Make sure the SI leaders hand in attendance sheets weekly.
5. Have SI leaders request that the professor forward the exam scores to the SI Supervisor.
6. Check that the SI leaders visit with the faculty member periodically throughout the term.
7. Make sure to introduce yourself to the faculty member and check in with them periodically to see how the SI leader is doing.
8. Help SI leaders interpret exam reports.

What other duties do the Mentors perform?
1. Complete paperwork required of Mentors (Observation Forms, Compliance Reports, Timesheets, etc.).
2. Assist the SI Supervisor with the in-service training of the SI leaders.
3. Provide liaison and advice to the SI Supervisor.
4. Help with marketing events (e.g., Freshman Orientations, Information Fairs, etc.).

How much time will monitoring/supervising will take each week with a new leader?
1. During the first two weeks of the academic term, it will take about seven hours for each SI each week, since the Mentor/Supervisor will attend class lectures, attend all the SI sessions, and will hold a weekly, private meeting with each new SI leader.
2. During the rest of the academic term, it will take about two hours per week per SI leader because the Mentor/Supervisor will observe one SI session per week, help with the planning and debrief the sessions.
3. If there are problems, the SI Mentor/Supervisor may need to attend additional class lectures and SI sessions and hold more individual conferences.

How much time will monitoring/supervising will take each week with a returning SI leader?
1. During the first two weeks of the academic term, it will take about five hours for each SI, since the Mentor/Supervisor will attend class lectures and all SI sessions and will hold a weekly, private meeting.
2. During the rest of the academic term, it will take the same time as a new SI leader (mentioned above).

Below are some questions frequently asked of Mentors by the SI leaders:
1. What do I do if a bunch of students come to the review sessions who haven't been to the regular sessions?
2. How should I introduce my Mentor/Supervisor to the SI students?

Below are some questions for you to consider:
1. Should the Mentor/Supervisor sit in the back of the room or among the SI participants?
2. What should be the working relationship of the SI leader and the Mentor/Supervisor?
3. What if an error is mentioned during the discussion or is placed on the board?
4. How passive or active should the Mentor/Supervisor be during the sessions?
5. Why should the Mentor/Supervisor go to the lectures?
6. What does the Mentor/Supervisor do if the SI leader does not seem open to training suggestions or to observations?
Case Studies\footnote{Situations 1-4 adapted from Onondaga Community College. Syracuse, New York. Special Thanks to Barbara Reisser.}

Each of these situations has actually occurred in an SI session. As a Mentor, how should you assist the SI leader? What variables could affect your choice of actions?

**Situation #1**
The SI leader is “stumped” by questions raised by the group and is floundering for a response to the problem. What would you do?

**Situation #2**
The SI leader lapses into a question-and-answer format. The SI leader is directing responses to the group. The student participants are responding directly to the SI leader, and there is no student-to-student interaction. What would you do?

**Situation #3**
The SI leader has done an informal quiz to get the session started and touched on one concept that is obviously very confusing to the group. A visual chart would be helpful to clarify the information, but the leader makes no move to deal with that need. What would you do?

**Situation #4**
A student who has never attended SI is dominating the discussion. The student insists that the SI leader answer questions about a concept discussed the week before. The SI leader is flustered; the regular attendees are becoming angry, and the dominating student is suggesting that SI is a waste of time. What would you do?

**Situation #5**
The SI leader seems unaware of several medical students who are rolling their eyes whenever nursing students ask questions. How will you deal with this situation?

**Situation #6**
The SI leader tells you that he has been told that he is flirting or coming on to some of the female students. He doesn’t think he has. How do you help the SI leader?

**Situation #7**
The SI leader does not show up the day of the class he/she is to announce the SI’s and pass out the surveys. What do you do immediately? What damage control can you do?

**Situation #8**
The SI leader complains that the professor of the class makes mistakes in the lecture. What would you advise the SI leader to do? What would you advise if the professor seems to be closed to listening to constructive criticism?
Case Studies (cont.)

Situation #9
It seems that a group of students in the class lack the prerequisite background for the course. Are there any steps that the Mentor can take to help with this situation?

Situation #10
The SI leader announces to the class that he/she will cancel sessions for a week. (Unannounced reason: the leader has exams in his/her own class(es).) How would you approach the leader?

Situation #11
The SI leader has body odor. How will you tell the leader?

Situation #12
Someone in the session makes a racial comment. What should you do?

Situation #13
The SI leader is conducting the sessions like a modified study hall: he/she is addressing students’ questions individually while having the rest of the student work on their own. The individual questions are not addressed in the whole group. How will you help the SI leader?

Situation #14
The SI leader has handouts that are essentially old test questions. The SI leader has a large stack of them available in the SI office for anyone in the class to pick up. How can you help the SI leader develop better handouts (and save the SI copy budget)?

Situation #15
You have told the leader repeatedly that the interactions in the sessions could be improved by moving the chairs into a circle or semi-circle. The leader continues to begin the sessions without doing so. How can you help change this pattern?
Forms

- SI Observation Record A
- SI Observation Record B
- SI Debriefing Sheet
- Compliance Report
- Mentor/Supervisor Evaluation
- Mid-Term Evaluation of SI Sessions
- Time Sheets and Payroll Information
- Time Sheet Justification
## SI Observation Record A

**Observer:**

**SI leader:**

**Date:**

**Course:**

**Number Attending:**

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

**Additional Comments:**
# SI Observation Record B

Observer: ___________________________  SI leader: ___________________________

Date: ___________________________  Course: ___________________________  Number Attending SI: ___________________________

<table>
<thead>
<tr>
<th>Activities</th>
<th>Observer's Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>
SI Session Debriefing Sheet

SI Leader: ____________________________ Date: __________________

1. What went right in the session?

2. How did the session match with the plans you made?

3. What didn’t go well in the session?

4. What plans for improvement can we agree upon?

5. Are there frustrations or problems to discuss?

6. List of questions to consider:
   ✴ Has the leader met with the professor?
   ✴ What kinds of session marketing has he/she already done?
   ✴ How well have the Planning the SI Session sheets been filled out?
   ✴ Have you met to work on planning some sessions?
   ✴ What kinds of interaction patterns have you noticed/document.
   ✴ How much Wait-Time is the leader using?
   ✴ To what extend is the leader utilizing/providing techniques to explain the language of the discipline?
   ✴ Is the leader providing the "big picture"?
   ✴ Is the leader incorporating strategies/techniques/ideas introduced in training/team meetings?
   ✴ Is the leader providing organizational strategies that help students learn the material (e.g. charts for summarizing types of problems, strategies to solve them or vocabulary exercises that group terms)?
   ✴ Have exams scores been handed in?
   ✴ Has the leader conducted a Mid-Term Survey?
Compliance Report

SI Leader: __________________________ Date: __________________________

SI Mentor: __________________________

SI Team Meeting Attendance

<table>
<thead>
<tr>
<th>Date:</th>
<th>Present?</th>
<th>Comments:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date:</th>
<th>Description:</th>
<th>Comments:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date:</th>
<th>% Participation:</th>
<th>Shared w/students?</th>
<th>Professor:</th>
<th>Class:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Marketing
Exam Reports

<table>
<thead>
<tr>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>Week 1</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Week 2</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Week 3</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Week 4</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Week 5</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Week 6</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Week 7</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Week 8</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Week 9</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Week 10</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Week 11</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Week 12</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Week 13</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Week 14</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Week 15</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Week 16</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
SI Leader Goal Tracking Sheet

Course: __________________________
Leader: _________________________
Mentor/Super: ____________________

Date:
Problem(s): ___________________________________________________________

Goal(s)/Solution(s): ____________________________________________________

Date:
Previous problem(s) occurring/ongoing:        Y  N
SIL trying agreed upon solutions:            Y  N

Comments: ____________________________________________________________

New Goal(s)/Solution(s): _______________________________________________

Date:
Previous problem(s) occurring/ongoing:        Y  N
SIL trying agreed upon solutions:            Y  N

Comments: ____________________________________________________________

New Goal(s)/Solution(s): _______________________________________________
Mentor/Supervisor Evaluation

1. I am/am not getting the support I need from my Mentor/Supervisor.
   Comments:

2. I feel comfortable/uncomfortable with the supervision.
   Comments:

3. My Mentor/Supervisor could help me better by:

4. I would like to have more contact with my Mentor/Supervisor.
   Comments:

5. The feedback from my Mentor/Supervisor includes/does not include specific suggestions.
   Comments:

Mentor/Supervisor’s name: _____________________________
<table>
<thead>
<tr>
<th>WEEK 1</th>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time In</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Out</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time In</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Out</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time In</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Out</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time In</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Out</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hrs Worked</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Hours First Week</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>WEEK 2</th>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time In</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Out</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time In</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Out</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time In</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Out</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time In</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Out</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hrs Worked</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shift Differential</th>
<th>Total Hours First Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earn Code</td>
<td>Hrs Worked</td>
</tr>
<tr>
<td>DF2</td>
<td></td>
</tr>
<tr>
<td>DF3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>For Office Use Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>MoCode</td>
</tr>
<tr>
<td>MoCode</td>
</tr>
</tbody>
</table>

Employee's Signature—I certify that this timesheet is complete and accurately reflects my time and effort.

Supervisor's Signature—I have reviewed this timesheet and find it to be accurate.

UM 12 NB (FEB 02) 1/31/02
# Time Sheet Justification

**Mentor:**

**Pay Period:**

<table>
<thead>
<tr>
<th>Day, Date, &amp; Time</th>
<th>Hours Spent</th>
<th>Duties Performed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendices

Memo of Agreement to Faculty
Center for Academic Development Organizational Chart
Center for Academic Development Telephone List
SI Organizational Chart
Implementation Report
Fax to Police
Mid-term Evaluation of SI Sessions

Please answer the following three questions honestly. You do not need to put your name on this evaluation form since it will not be used for data analysis. It is simply a way to find out how we can serve you better in SI. Thank you.

1. Have you attended at least one SI session for this course this semester?

2. If you have not, why? Please give some sort of reason. (e.g. Do you have scheduling conflicts? Is this class easy for you?)

3. If you have attended, is there anything you feel that could use improvement in the SI sessions?

Please answer the following three questions honestly. You do not need to put your name on this evaluation form since it will not be used for data analysis. It is simply a way to find out how we can serve you better in SI. Thank you.

1. Have you attended at least one SI session for this course this semester?

2. If you have not, why? Please give some sort of reason. (e.g. Do you have scheduling conflicts? Is this class easy for you?)
<table>
<thead>
<tr>
<th>Administrative Offices</th>
<th>Room Number</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glen Jacobs, Director</td>
<td>208</td>
<td>235-6326</td>
</tr>
<tr>
<td>Maureen Hurley, Associate Director</td>
<td>211</td>
<td>235-5557</td>
</tr>
<tr>
<td>Lisa Stout, Assistant to the Director</td>
<td>209</td>
<td>235-1167</td>
</tr>
<tr>
<td>Linda Carter, Academic Access Programs</td>
<td>214</td>
<td>235-1163</td>
</tr>
<tr>
<td>Bonnie Painter, Business Affairs Coordinator</td>
<td>204</td>
<td>235-1175</td>
</tr>
<tr>
<td>Jennifer Carnicom, Continuing Education Coordinator</td>
<td>210</td>
<td>235-1174</td>
</tr>
<tr>
<td>Sheela Perumal, Business Affairs Coordinator</td>
<td>210A</td>
<td>235-1173</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Advanced Preparation Program</th>
<th>Room Number</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cecilia Brewer, Program Coordinator</td>
<td>6 Scofield</td>
<td>235-2586</td>
</tr>
<tr>
<td>Nancy Longhibler, Academic Advisor</td>
<td>22 Scofield</td>
<td>235-6270</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GEAR UP/Project SHIFT</th>
<th>Room Number</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angel Abercrombie, Administrative Assistant</td>
<td>101C</td>
<td>235-6031</td>
</tr>
<tr>
<td>Nida Daniels, Outreach/Volunteer Coordinator</td>
<td>ML King</td>
<td>418-2530</td>
</tr>
<tr>
<td>Tony Dickerson, Program Coordinator</td>
<td>101B</td>
<td>235-6021</td>
</tr>
<tr>
<td>Marvin Fight, Academic Counselor</td>
<td>ML King</td>
<td>418-2530</td>
</tr>
<tr>
<td>Matthew Martinek, Mentor Volunteer Coordinator</td>
<td>101D</td>
<td>235-5771</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Jumpstart</th>
<th>Room Number</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sylvina Munita, Program Coordinator</td>
<td>24 Education</td>
<td>235-1003</td>
</tr>
<tr>
<td>Math Resource Center</td>
<td>206B</td>
<td>235-1108</td>
</tr>
<tr>
<td>Lisa Stout, Coordinator</td>
<td>209</td>
<td>235-1167</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supplemental Instruction</th>
<th>Room Number</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amelia McDaniel, Campus SI Asst. Coordinator</td>
<td>206A</td>
<td>235-1162</td>
</tr>
<tr>
<td>Robert Blanc, Research Coordinator</td>
<td>203</td>
<td>235-5758</td>
</tr>
<tr>
<td>Kim Wilcox, SI Training Coordinator</td>
<td>110</td>
<td>235-1100</td>
</tr>
<tr>
<td>Sandee Zenger, Campus SI Coordinator</td>
<td>206AA</td>
<td>235-1166</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Upward Bound/Project First</th>
<th>Room Number</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natasha El-Scarl, Project Administrator</td>
<td>101A</td>
<td>235-1115</td>
</tr>
<tr>
<td>Michael Long, Academic Coordinator</td>
<td>101G</td>
<td>235-5567</td>
</tr>
<tr>
<td>Kim Sevedge, Administrative Assistant</td>
<td>101</td>
<td>235-5753</td>
</tr>
<tr>
<td>Computer Lab</td>
<td>106</td>
<td>n/a</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Video-Supplemental Instruction</th>
<th>Room Number</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sonny Painter, VSI HS Program Coordinator</td>
<td>112</td>
<td>235-1178</td>
</tr>
<tr>
<td>Kay Patterson, Campus VSI Coordinator</td>
<td>111</td>
<td>235-1179</td>
</tr>
<tr>
<td>VSI Facilitators</td>
<td>107, 108E, &amp; 109</td>
<td>n/a</td>
</tr>
</tbody>
</table>
Date:

UMKC Police Department
Room 2134
4825 Troost
Kansas City, MO 64110-2499

RE: Permission to have Supplemental Instruction (SI) sessions

Sonny Painter has my permission to hold SI sessions in Flarsheim Hall, Room 262, on Saturdays from 1:00 to 4:00 pm for the rest of the semester.

Thank you.

Sandra Zerger
Coordinator
Supplemental Instruction (SI)
Implementation Report

Term: __________________________ SI Supervisor: __________________________

Course Descrip. and Reference Number: ______________________________________

Notes: _________________________________________________________________

---------------------------------------------------------------

Reason SI is in this class:

Institutional Tradition: __________ yes __________ no
Professor/Department Request: __________ yes __________ no
Standard Risk Evaluation: __________ yes __________ no

% of unsuccessful enrollments (DWF): __________
Total Course Enrollment: __________
Other Risk Factors: _______________________________________________________

---------------------------------------------------------------

Course Instructor

Name: __________________________

Understands SI Model: 1 2 3 4 5
Approves of the Program: 1 2 3 4 5
Not at All Absolutely

Notes: _________________________________________________________________

---------------------------------------------------------------

SI leader

Name: __________________________

Had class before?: __________________________ yes __________ no
Same Instructor?: __________________________ yes __________ no
Attended Training?: __________________________ yes __________ no
Returning leader?: __________________________ yes __________ no
Did SI provide text(s)?: __________________________ yes __________ no
How Many: ________ Cost: __________

Misc. Special Arrangements: _______________________________________________