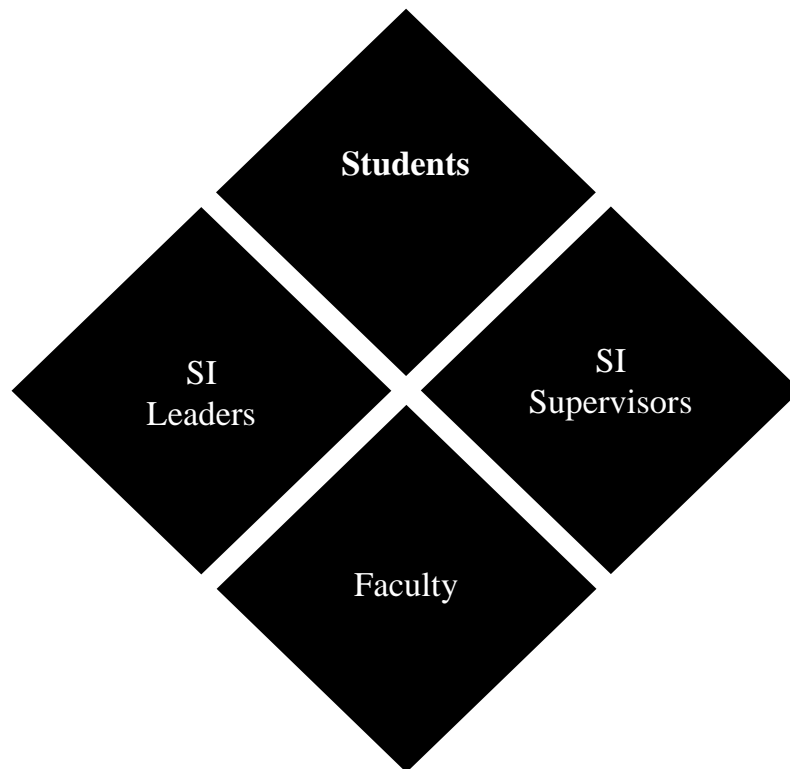


Supplemental Instruction (SI)

Peer Facilitated Study Sessions

Information for Iowa State University

Faculty and Staff



Iowa State University

Academic Success Center

Supplemental Instruction

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www.si.iastate.edu

Supplemental Instruction (SI)

Overview

Supplemental Instruction (SI) is an academic support program utilizing peer-assisted study sessions to enhance student performance and retention. SI was first developed by Deanna Martin, Ph.D., at the University of Missouri at Kansas City in 1973. In 1992, Iowa State University established a SI program targeting traditionally difficult entry-level courses that result in a high percentage of D or F grades and drop rates. Since its implementation, students who have attended SI sessions earned statistically significant higher final course grades and drop out of courses less frequently than non-participants.

SI offers regularly scheduled study sessions to assist students with course content and study skills. In addition, students have an opportunity to work together to compare notes, discuss readings, develop organizational tools, and predict exam questions. The SI sessions are facilitated by SI Leaders. SI Leaders are current students who have demonstrated academic competency in the subject area, and are trained in facilitating group activities using collaborative learning methods.

Key Elements of Supplemental Instruction

- ◆ SI identifies traditionally difficult academic courses rather than high risk students; SI is not a remedial academic program.
- ◆ SI provides an opportunity for students to learn *how to learn* while learning *what to learn*.
- ◆ Participation in SI is voluntary, free, and open to all students in the course.
- ◆ SI Leaders attend all lectures for targeted course.¹
- ◆ SI Leaders are trained in group facilitation methods, student learning theory, and study techniques.
- ◆ The SI program is supervised by a trained professional staff member from the Academic Success Center.
- ◆ The SI program is only offered in classes in which the academic department supports SI.
- ◆ SI sessions begin the 2nd week of classes after students have given input as to when sessions will be scheduled.
- ◆ SI Leaders facilitate and encourage the group to process the material. Leaders are not considered experts in the subjects and they do not relecture to participants.

¹ An alternate format is arranged for web-based courses.

Research and Assessment

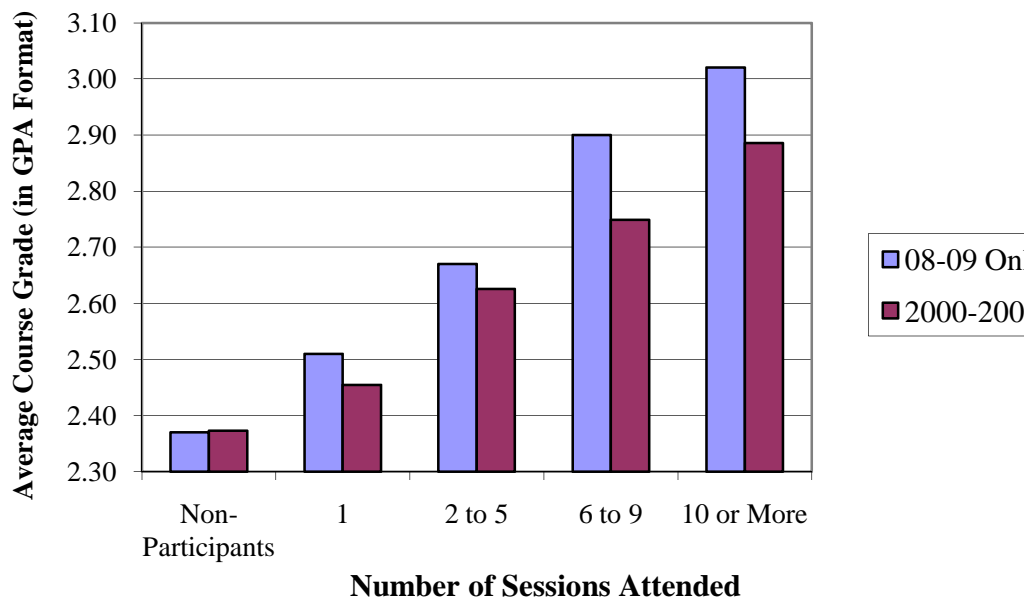
Data collected by the Center for Supplemental Instruction at the University of Missouri-Kansas City from 719 institutions in the United States and 146 institutions in twelve other countries demonstrates two key findings:

1. Students participating in SI earn higher course grades and withdraw less often than non-SI participants.
2. The more sessions a student attends, the higher the final course grade.

Since the implementation of Supplemental Instruction at Iowa State University in 1992, data collected supports the national trends. An extensive study conducted in 2000 revealed that SI participants in entry-level biology, chemistry, mathematics, and physics courses have lower ACT composite scores than non-participants, yet achieve higher final course grades than those who did not participate in the program.

To continually assess the impact of SI participation, course rosters and additional student variables are obtained from the Registrar's office each semester. A preliminary survey will be administered to students during the first week of classes and an end of semester survey will be distributed to all students at the completion of the semester. Instructors may be contacted to obtain permission to receive test grades during the semester. This information is used to evaluate the progress of the SI sessions and to encourage more students to attend SI. Students' names are not reported in outcome data. Test scores and final grades are destroyed promptly upon completion of final reports. Faculty may review a copy of each report following the completion of each semester.

Final Course Grades Based on the Number of Sessions Attended, For All Courses



We are developing further assessment and research using our data, and we welcome interest from faculty members who would like to partner with us on a project.

Commonly Asked Questions from Faculty and Staff

What is the instructor's role in Supplemental Instruction?

The success of the SI program hinges on instructors endorsing the program. Attendance has been shown to increase in classes where the instructor regularly encourages students to participate in SI. SI is also most successful when the faculty member meets with the SI leader periodically to share information about the class outcomes and objectives.

Many SI Leaders apply for the program with a desire to build a relationship with a faculty member. Faculty members are not responsible for supervising or training SI leaders, but are welcome to develop advising/mentoring relationships with Leaders.

Although SI Leaders regularly attend the course, instructors are welcome to provide resources to SI Leaders (ex: notes, practice exams, etc) that could be used to plan SI sessions. Moreover, faculty endorsement of SI (through announcements or referrals) can encourage student participation in SI.

What is the instructor's time commitment to SI?

We do not expect instructors to be involved any more than they are willing. Minimally, we would like Leaders and faculty to meet at least once to start the semester, then periodically as needed. Any additional time is based on supporting student participation or supporting the SI Leader.

Why is a course considered difficult?

This determination of a course as "traditionally difficult" is not based on instructors' teaching ability. In fact, most courses supported by SI are determined before instructors' teaching assignments are confirmed.

SI emphasizes historically difficult courses, rather than students with difficulties. At Iowa State University, a course is historically difficult if patterns show that 30% or more students regularly receive a grade of C- or lower or drop the course. Many of these courses also address the gap between student ability and the expectations of the course.

What is the theory supporting SI?

As summarized by Congos (2002):

"Theorists such as Dewey, Piaget, and Bruner advocate learning in peer groups (collaborative learning). SI brings students together to collaborate to study and learn common subject matter...many SI activities are consistent with Piaget's concept of constructivism wherein students must construct their own knowledge and use it to gain an understanding of material to be learned (Piaget, 1964). Educational research (Dimon, 1988; Keimig, 1983) finds that it is difficult to teach transferable study skills apart from content. Therefore, SI's effectiveness comes from applying *how to learn course content* directly to *the content* in historically difficult classes."

Can I offer extra credit to students who participate in SI?

It is important to us that students receive no academic credit (i.e., extra credit) simply for participating in SI sessions. As mentioned, SI should be voluntary and we know that it is not equitably accessible to all students. Offering extra credit for participating in SI risks increasing our session attendance with students who are less interested in the learning experience and more interested in earning easy grades. This compromises SI session effectiveness.

We have had faculty members provide extra credit to students who participate in our surveys. As long as students have the equal opportunity to participate, we are willing to partner in this type of opportunity.

Why does the SI Leader attend class?

SI Leaders attend class to stay abreast of current content being covered. The notes they take are not typical students' notes—SI Leaders' notes are SI session plans and ideas.

Leaders also use class time to focus on converting class content into SI session material. Their in-class actions should role model appropriate student behavior. Leaders prepare differently in advance and look for different things than a typical student. Because of the difference in preparation prior to class, SI Leaders might not be prepared to answer a content question. However, SI Leaders can assist instructors in class (ex: distributing/collecting documents).

What is the class time commitment?

SI Leaders traditionally find it useful to use time during class to accomplish the following:

- ◆ Introduce SI and distribute a scheduling survey during the first week of class.
- ◆ Promote SI sessions through signs or by writing on the chalk/white board.
- ◆ Verbally announce SI as allowed by the instructor.

How is SI promoted to students?

During the first week of classes the SI Leader will make a 10-minute presentation to the class to highlight the benefits of SI and explain the program. During this time, the SI Leader will also ask the students to complete a brief survey to determine student interest in SI and discover the best days/times to schedule sessions. Bookmarks will be distributed to students during the 3rd week with the session times and locations.

We also rely heavily on an interactive online SI schedule (www.si.iastate.edu) to keep information about SI constantly updated. Through this schedule, students can communicate with their SI Leader. Students can also receive e-mail updates about SI for their course.

What happens at SI sessions?

SI session content can vary greatly, based on the course, course content, upcoming quizzes/exams, number of students present, and time of semester. All SI sessions are guaranteed study time based on collaborative learning methods. Some methods used are: lecture/book note clarification, textbook reading review, practice problem solving, discussions, and study skill development.

When are the SI sessions?

For most courses, there are three 50-minute sessions per week. Specific days, times, and locations are posted on our website. Sessions are typically held in the late afternoon and early evening.

Can instructors attend SI sessions?

In general, we do not want instructors at SI sessions. The dynamic of the session changes immediately. The tone tends to change to match the instructor's typical classroom setting. Moreover, students turn to instructors to ask questions, rather than to their SI Leader. Instructors who are curious about the content of sessions should contact the SI Coordinator to learn more.

Can faculty members find out which students are attending SI sessions?

We strongly prefer not providing instructors with this information. Attendance at SI is voluntary, and we know our schedule of sessions may not accommodate every student. Instructors also benefit from not knowing the SI participants by removing any perception of bias in grading.

Attendance taken at SI sessions is for our program evaluation. Instructors may request our end of the semester report comparing final grades of SI participants vs. non-participants.

Why does the SI program use final course grades?

The traditional basic model of assessing the SI program includes students' final grades in courses. SI is able to obtain final course grades without students' prior consent based on provisions in section 99.31 of the Federal Education Rights to Privacy Act. This provision states:

- a) An educational agency or institution may disclose personally identifiable information from an education record of a student without the consent required by 99.3 if the disclosure meets one or more of the following conditions:
 - (1) The disclosure is to other school officials, including teachers, within the agency or institution has determined to have legitimate educational interests.

(6)(i) The disclosure is to organizations conducting studies for, or on behalf of, educational agencies or institutions to:

(C) Improve instruction

(6)(ii) The agency or institution may disclose information under paragraph (a)(6)(i) of this section only if:

(A) The study is conducted in a manner that does not permit personal identification of parents and students by individuals other than representatives of the organization; and

(B) The information is destroyed when no longer needed for the purposes for which the study was conducted.

What benefits do I receive as an instructor?

Instructors have noticed a variety of benefits. Common benefits include:

- ◆ Improved interactions with students during office hours.
- ◆ Opportunity to mentor the SI Leaders, who are often interested in graduate school and/or teaching..
- ◆ Leaders can provide instructors with feedback about difficult course content.
- ◆ Some SI participants become more actively involved in class.
- ◆ Improved student learning is reflected in final course grades and instructor evaluations.

How can I request SI for a particular course?

Requests for SI sessions should be made the semester prior to ensure adequate time to locate, hire, and train qualified SI leaders. Contact the SI Coordinator for more information, or refer to the following website:

<http://www.dso.iastate.edu/asc/supplemental/planning/>

SI is not being offered for my class. Can I create SI on my own?

While we would like to offer SI for every course where there is interest, we do have limitations. We are definitely advocates of support for student learning! However, creating your own program must not conflict with conditions established by the University of Missouri-Kansas City, who own rights to the SI program name and format. We certainly encourage all initiatives to provide support for student learning; however, Iowa State University instructors and departments who want to “create SI” on their own are encouraged to speak with the SI Program Coordinator to avoid conflicts.

Can instructors provide input on the SI Leader who is hired?

We have an application process in place that looks for candidates who have the content knowledge and the ability to facilitate learning in groups. We provide training for the latter, but we are unable to increase SI Leaders’ content knowledge. Therefore, we strongly prefer SI Leader candidates who are recommended by faculty.

Who supervises the SI Leaders?

The SI Program Coordinator is the lead SI supervisor. Graduate Assistants in the Academic Success Center also supervise the SI Leaders.

Instructors often mentor or advise SI Leaders as needed; however, instructors should refer compliments and concerns about the performance of an SI Leader to the SI Program Coordinator.

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