

Iowa State University
Dean of Students Office
Supplemental Instruction-Academic Success Center

**Supplemental Instruction Outcomes Assessment Overview
2008-2009**

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Supplemental Instruction Outcomes Assessment Overview, 2008-2009

Abstract

Semesterly evaluations of the Supplemental Instruction (SI) program assess whether students who attend SI sessions earn higher final course grades than students who do not attend SI sessions. This report provides an overview to SI participation during the 2008-2009 academic year, which continues to demonstrate a positive influence on student academic success.

Program

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 an SI program targeting traditionally difficult entry-level courses that result in a high percentage of D or F grades and withdrawal rates. Since its implementation, students who have attended SI sessions earned statistically significant higher final course grades and withdraw from courses less frequently than non-participants.

Executive Summary

Purpose

Our general outcomes assessment of SI fulfills the following purposes:

- ◆ to continue ongoing reporting of information collected by the Supplemental Instruction staff,
- ◆ to disseminate findings to faculty, students, SI Leaders, Academic and Student Affairs Administrators, and
- ◆ to report statistics comparing participants in SI to non-participants.

This report also provides the general framework for additional data analysis and reporting.

Methodology

Course rosters are obtained from the Registrar's Office each semester without the students' prior consent under the following provision in the Family Education Rights to Privacy Act: 34 CFR Part 99. The rosters contain students' demographic and academic variables. The data are merged into a database created using the statistical software SPSS. SI Leaders track attendance at each SI section. This information is regularly entered into the database and used to evaluate participation in SI sessions. Data entry and database management are primary responsibilities of the Undergraduate Research Assistant.

At the end of each semester, final course grades are merged into the database to compare participants and non-participant course outcomes. Students' names are not reported in outcome data and all personal information is kept confidential. Additional coding is created to enable and simplify reporting. Comprehensive reports including descriptive statistics of SI Participants and Non-Participants, summary reports for each class including final course grades, number of SI sessions attended, mean number of sessions attended, mean size of SI sessions, and final course grade according to number of SI sessions attended. Additional reports are completed for special programs on campus and to assess specific features of the SI program.

Findings

The findings reported are based on data collected for all courses over the entire 2008-2009 school year. Highlights for the academic year include:

- ◆ We offered SI for 21 different courses during the fall semester, and 23 courses in the spring. The final course grade for SI Participants was significantly higher for 25 of the courses.
- ◆ 81.8% of SI Participants received a final grade of C or higher, compared to 63.2% of Non-Participants.
- ◆ Non-Participants were three times more likely to drop out of a course than SI Participants.
- ◆ 81.1% of SI Participants believe SI helped them earn at least a ½ letter grade improvement in the course.
- ◆ 90.6% of SI Participants would recommend SI to a friend.

- ◆ 93.5% of students' ratings of their SI Leaders' skills (on six qualities) were "Satisfactory," "Good," or "Excellent." (82.5% were "Good" or "Excellent.")

TABLE 1: SI Participant and Non-Participant Group Comparison

	SI Participants (N=6892)		SI Non-Participants (N=18,710)		All Students (N=25,602)	
	Number	Percent	Number	Percent	Number	Percent
Combined A, B, C	5637	81.8%	11,833	63.2%	17,470	68.2%
Combined C-, D, F, Drop	1255	18.2%	6877	36.8%	8132	31.8%
Mean Final Course Grade	2.72***		2.37***		2.47	

*** Significant difference of means at $p < 0.001$

Note: Audits, transfer credits, incompletes, and pass/not pass grades are not included in the analyses.

TABLE 2: Student Success Based on Level of Participation in SI

	Mean Final Grade	N	% of Participants
Students attending 1 SI Session	2.51	1070	15.53%
Students attending 2-5 SI Sessions	2.67	3620	52.52%
Students attending 6-9 SI Sessions	2.90	1155	16.76%
Students attending 10 or more SI Sessions	3.02	798	11.58%

TABLE 3: Summary of Additional Participation Data

Number of SI Sessions Offered During the Academic Year	2634
Total Number of Students Attending SI	6892
Total Contact Hours of SI Participants	33507
Mean Number of Sessions Attended by SI Participants	5
Mean Size of SI Sessions	13
Highest Number of SI Sessions Attended by One Student for One Course	53

Discussion and Recommendations

The success of the 2008-2009 SI program can be accurately summarized as follows: We served more students, in more courses, for more contact hours than *any* prior year in the history of SI at Iowa State University. This was accomplished with no increase in funding for programming for many years. The recent growth of SI has been accomplished through small changes in the program that have had a collective large impact on participation in SI sessions. These small changes affected staff training/development, promotion of SI, and scheduling of SI sessions.

Additional changes in our data collection have also empowered us to further assess the SI program, as shown in other reports. General recommendations include:

- ◆ Secure additional funding to support SI for all sections of courses (ex: ECON 101/102, SOC 134) where there clearly is a targeted section that is served by SI and a distinctly different group of other sections that are not served by SI.
- ◆ For courses that have lost alternative support for students (ex: Organic Chemistry losing recitation), determine the ability for SI to fulfill students' needs and gain financial support to expand SI.
- ◆ Develop additional supervisory/mentoring support for SI Leaders.
- ◆ Use additional data collected to further promote the success of the SI program.