

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

Supplemental Instruction: Outcomes Assessment, 2007-2008

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Abstract

Semesterly evaluation of the Supplemental Instruction (SI) program assesses 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 the data collected during the 2007-2008 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 a 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

This assessment is completed to fulfill the following tasks:

- ◆ Continue ongoing reporting of information collected by the Supplemental Instruction staff
- ◆ Disseminate findings to faculty, students, SI Leaders, Academic and Student Affairs Administrators
- ◆ Report statistics comparing participants in SI to non-participants
- ◆ Provide a framework for additional data analysis and research projects.

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-SI 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.

Findings

The findings reported are based on data collected over the entire 2007-2008 school year. Individual data for each class or semester are also available.

TABLE 1: SI Participant and Non-Participant Group Comparison

	SI Participants (N=4654)		SI Non-Participants (N=14,151)		All Students (N=18,805)	
	Number	Percent	Number	Percent	Number	Percent
Combined A, B, C	4253	78.8%	11,281	66.9%	15,516	69.8%
Combined C-, D, F, Drop	1139	21.2%	5573	33.1%	6712	30.2%
Mean Final Course Grade	2.63***		2.41***		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	2.56	1225	22.79%
Students attending 2-5 SI Sessions	2.59	2536	47.19%
Students attending 6-9 SI Sessions	2.73	782	14.55%
Students attending 10 or more SI Sessions	2.79	654	12.17%

TABLE 3: Summary of Additional Participation Data

Total Course Enrollment (students who appear on final class roster after drop/add)	22,228
Number of SI Sessions Offered During the Academic Year	2381
Total Number of Students Attending SI	5374
Total Contact Hours of SI Participants	25,653
Mean Number of Sessions Attended by SI Participants	5
Mean Size of SI Sessions	11
Highest Number of SI Sessions Attended by One Student	42

Discussion and Recommendations

- ◆ Weather during the spring 2008 presented an interesting challenge to the SI program. We observed lower than usual participation numbers prior to mid semester, but the final count grew with higher attendance near the end of the semester. This experience emphasizes the need to provide support for students through any means possible.
- ◆ Spring circumstances also suggest revising assessment practices to consider “fall to fall” and “spring to spring” longitudinal comparisons. We are working on summaries of results from prior years to explore these comparisons.
- ◆ Similar, course specific comparisons are being compiled, and set up for ongoing
- ◆ All existing electronic data for SI is being compiled summer 2008 into a single database. This is the first step towards extensive exploration of data for retention based assessment.
- ◆ Continued development of the SI website is providing greater means to keep students informed.