Motivation to Attend Supplemental Instruction
2012-2013

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Abstract
Supplemental Instruction (SI) sessions are scheduled based on survey data collected during the first week of the semester. One question on the survey asks students to identify their level of interest in SI. This survey question, and students’ total number of SI sessions attended for the semester, are used here as predictors of motivation to show that motivation to attend contributes to higher final course grades. Results show that intent to attend SI does not equate to a higher final grade, but actual attendance in SI is positively correlated to final grades.

Executive Summary

Purpose
The purpose of this assessment is to determine whether two variables serve as suitable measure of motivation and how these variables contribute to students’ final grades.

Methodology
During the first week of classes for the semester, SI Leaders coordinate the distribution and collection of a scheduling survey. One question asks students to “Please indicate your interest in attending SI for this course.” Responses are recorded based on a scale of 1 to 5 (where 1=Not Interested; 5=Very Interested).

Some faculty/staff have stated that SI tends to attract the students who have stronger academic ability, believing that this group of students has a higher level of inherent motivation. Hence, we controlled for academic ability in a multiple regression model to predict students’ final grades based on their total attendance and level of interest, while controlling for academic predictors (high school rank and ACT score).

Findings
First, all of the variables in the regression model correlated to final grade (dependent variable) as follows:

- There is a small, negative correlation ($r=-.086, n=7634, p<.001$) between students’ level of interest in SI and their final grade.
- There is a small, positive correlation ($r=.119, n=7634, p<.001$) between students’ total attendance in SI sessions and final grade.
- There is a medium, positive correlation ($r=.448, n=7634, p<.001$) between students’ high school rank and final grade.
- There is a medium, positive correlation ($r=.349, n=7634, p<.001$) between students’ ACT score and final grade.

Of the two potential variables that predict students’ motivation, these correlations shows that total attendance is a stronger predictor for motivation than their self-reported level of interest in SI. Note that there is a small, positive correlation ($r=.210 n=7634, p<.001$) between students’ level of interest in SI and their total attendance.

These correlations also show that academic ability likely predicts final grades, justifying the need to control for academic ability in the regression model.

Second, the multiple regression model shows that students’ level of interest and total attendance are small predictors of students final grades. Based on the adjusted $R^2$ value, the combination of students’ total attendance and their level of interest in SI explain 24.5% of the variance in final grades.
Discussion and Recommendations

These findings show that students’ level of interest in SI at the start of the semester minimally serves as a measure of students’ motivation to participate in SI. Participation in SI itself is a better indicator of motivation to participate again in SI.

The negative correlation between level of interest and final grade, albeit a small correlation, shows that higher motivation as intent to participate does not equate directly into a higher final grade. This finding validates our prior practice to schedule SI sessions based on students with a higher level of interest in SI; however, the variance explained in the regression model shows there must be other variables that affect final grades than motivation. We do not measure other variables that could explain this variance. Hence, we may best serve students by make SI available to the most students possible, not just those with the higher level of interest.

Students’ total attendance in SI sessions is a stronger measure of motivation. The small positive correlation between total attendance and final grade shows that higher motivation as actual participation is more likely to result into a higher final grade. Hence, this assessment may also contribute to promotion of SI by showing that level of attendance is a stronger contributor to final grade than motivation to attend. SI Leaders can use this knowledge to encourage on-going attendance at and participation in SI sessions.