

Essential Elements of Supplemental Instruction

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Following are ten essential elements of SI that staff at the Center for SI in Kansas City have identified. While it would be possible to list dozens, or hundreds, of additional elements, this list of ten seemed to deal with the most critical factors. The elements help express the uniqueness of the model in comparison to other forms of academic assistance. One of the strengths of the SI model has been that it is “content-free” as well as “context-free.” SI has enjoyed success both here in the U.S. as well in 115 institutions in a dozen countries. Developing “essential elements” for SI world wide is difficult.

The key to defining SI is not whether a particular collaborative learning strategy is used during the SI session. We have noted this issue recently. Over the years we have experimented with many group activities and strategies in the SI sessions. Back in 1973 when the model was first developed, SI was one of the first organized programs in American higher education that featured collaborative learning activities as an important component. It has only been in recent years that many in higher education have concluded those one-on-one activities (e.g., individual tutoring) are not as effective as small group work. We have included many of the most successful group learning and study strategies in the SI Supervisor and SI Leader training manuals. The most complete definition of SI includes the basic principles that guide the entire SI program.

1. The SI leader knows what is going on in the targeted class.

In the American education system the SI leader attends all lecture sessions in the targeted class. This affords the best opportunity for the SI leader to hear what is occurring in the class sessions and for the SI leader to model good student behavior in the course. If the potential SI leader cannot attend class, it is generally best in the American education system to not offer SI or to clearly identify the academic assistance sessions as group tutoring. Education systems in countries other than the U.S. often present scheduling incomparability between the SI leader and the time that the targeted class meets. In these cases the SI leader meets at least once a week with the targeted class instructor to discuss the lecture content, textbook readings, home work assignments, and proposed SI session activities.

2. The SI leader receives significant training.

The SI leader receives one or more days of training by the campus SI supervisor before the beginning of the academic term. This training continues periodically through the rest of the academic term. These training sessions include specific teaching/learning theory and strategies.

3. The SI program is supervised by someone who is qualified.

A trained professional staff member supervises the SI leader and the SI program. Among other duties, the campus SI supervisor periodically attends SI sessions throughout the academic term and provides helpful feedback for the improvement of the program. To best assure SI program success, the professional staff member should have attended a SI Supervisor workshop conducted by a staff member from UMKC or a Certified Trainers.

4. When possible, the SI program is focused on serving all students enrolled in targeted classes that are historically difficult for many rather than focusing on identifying and serving only the “high risk” student.

This is a major defining principle of the SI program. While education has historically created academic improvement programs that follow the medical model of attempting to diagnose students

who may have academic difficulty, the SI program serves classes where a large portion of students will experience academic difficulty. These students often fail to be classified as “deficit” based on entrance examination scores or previous academic failure. SI avoids this remedial stigma by focusing on classes rather than individual students. Rather than the medical model, the SI model follows the public health model. The public health model looks for systematic changes that can be made in the environment (e.g., draining the swamps that breed mosquitoes that carries malaria) rather than focusing on attempting to treat all the individual patients (e.g., malaria patients.) The SI program provides systemic change in the learning environment for all students enrolled in the targeted class. While all students may not take advantage of the voluntary service, it attracts an equal proportion of students from differing ability and cultural groups. SI does not segregate students based on prior academic performance or predictions of academic success. SI sessions work best with heterogeneous groupings of students. Participating students receive higher measures of academic achievement in comparison to their nonparticipating counterparts. Due to SI program funding restrictions at some American institutions the students who are served by SI may be restricted to those who meet eligibility requirements. The essential nature of the SI sessions is unchanged. The only difference is that the SI groups are generally more homogeneous in nature. Research evaluation procedures must be modified in these situations to ensure appropriate comparisons.

5. A fellow student facilitates the SI sessions.

The ideal SI leader is a student who has recently taken the class from the same instructor and received a high final course grade. All SI leaders are approved by the class professor for content competency. A primary function of the SI leader is to facilitate discussion among SI participants and model successful study strategies at key moments in the SI sessions. The SI leader neither relectures nor introduces new material. Although the SI leader provides structure and mentoring, the responsibility for processing class material and answering questions generated by the student group remains with the students. In the absence of an appropriate student, a staff member or community resident may serve as SI leader. After one academic term of participation in the SI program, the SI leader will have prior experience with the targeted course professor that is helpful in SI sessions.

6. The SI Leader serves as a model student.

SI leaders are presented as model students of the subject. As such, they present an appropriate model of thinking, organization and mastery of the discipline.

7. The SI program is only offered in targeted classes that have faculty member support.

The instructor of the targeted class must both understand the SI program and support its attachment to his or her class. Faculty members can choose their level of involvement with the SI program. Faculty members screen SI leaders for content competency.

8. The SI sessions are regularly scheduled throughout the academic term.

The SI sessions are offered starting the first week of the academic term. SI sessions are generally offered three or more times each week. Their scheduling is based upon student demand. Attendance in SI sessions is voluntary and attendance in the sessions is not reported to the class instructor. These sessions are generally scheduled in the geographic area assigned to the class’s academic department rather than in a separate learning assistance center. This “outreach” model of academic assistance is generally more attractive to students who have a higher comfort level for attending SI sessions in the geographic area of their class sessions.

9. SI sessions integrate class content with learning skills.

The SI sessions integrate together review of lecture notes, textbook readings, outside supplemental readings along with appropriate modeling of learning strategies. “*how to learn*” is embedded into SI sessions along with “*what to learn*.” Through practice and mastery of effective learning strategies, students can adopt and transfer these strategies to other classes in future academic terms.

Collaborative learning strategies are often used in SI sessions as a means to create a more active learning environment for student participants.

10. The SI program is evaluated each academic term that it is offered.

There are two reasons to evaluate the SI program each academic term: inform the SI program leaders so it can be improved and the quality is assured; inform the college administrators on the impact of the funding of the program. The SI program should be evaluated appropriately by assessing institutional outcome measures (e.g., final course grades, course withdrawal rates, institutional drop out rates, institutional graduation rates). When possible, SI program studies should control for prior academic performance of all students enrolled in classes where SI is offered (e.g., secondary school graduation rank percentile, cumulative college grade point average, scores on college entry assessments.)