Considering Supplemental Instruction for Your Institution

What is SI?

How do we Know it Works?

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Overview

- Implementing academic support programs to increase student retention
- Supplemental Instruction Overview
- Supplemental Instruction at UWM
- Role of Faculty
- Planning for Supplemental Instruction
Selecting Intervention Programs

- Identify Student Retention Problem
- Sort Potential Interventions
- Analyze Campus Capacity to Implement
- Evaluate Campus Culture
- Modify Campus Environment
- Implement Intervention Program

Arendale (2005)
Student Retention Efforts

- Classroom Instruction Approaches
  - Expansion of various instructional techniques
  - Use of active learning strategies
- Building Academic Community
  - Learning Communities
  - Service Learning
  - Mentoring
  - Faculty-student interaction
  - First-year Experience programs
- Learning Assistance
  - Tutoring / Peer assisted learning
  - Supplemental Instruction
  - Study groups
University of Wisconsin-Milwaukee

- 30,000 students
- 22,000 undergraduates
- 4,050 first-year students
- Average student age is 22
- Urban campus
  - 2,700 students live in residence halls
  - 6,000 live in a 2 mile radius of campus
  - Also considered a commuter campus
Access to Success Goals

- Increase retention and success rates for all first-year students
  - Increased grades and grade point averages
  - Re-enrollment in following semester
  - Enhanced student self-perception and abilities as a learner
  - Higher levels of student engagement
- Reduce the gap in retention rates for students of color and underrepresented students
- Increase retention rates for students with remedial placements
Foundation Data for Access to Success

Fall to Fall Retention Rates
UWM 2003 New Freshmen

- All Students: 63.1% Students of Color, 73.5% White
- Students requiring no developmental education: 77.2% Students of Color, 75.8% White
- Students requiring both English and math developmental courses: 48.9% Students of Color, 66.2% White
Access to Success: The First Year

Freshmen Enter
- 1st Year Transition Courses
- Mentoring, advising, tutoring, Supplemental Instruction
- Honors Programs/Undergraduate research
- Learning Communities
- First Year Center
- Multicultural Student Center
- Freshman Year Course Redesign

Early Warning System

Sophomores Return

Summer Bridge Program

Developmental work completed by first spring
To help students achieve academic success, to improve grades, persist and graduate

We work with students, programs, departments, schools and colleges across campus to support student learning

We target students taking 100- and 200-level courses
TARC’s Services

- Tutoring for 120 courses
  - weekly small group sessions
  - walk-in sessions
  - individual appointments
  - online tutoring

- Supplemental Instruction (1996)

- Study groups

- Academic resources
Supplemental Instruction: SI Model

- SI began in 1972 at University of Missouri-Kansas City
- Select high-risk courses where the D, F and W rates are 30-40%
- Targets at-risk courses, not at-risk students
- SI leaders are top students who have previously taken the class
- SI leaders attend course lectures & hold 3-4 voluntary review sessions per week
Supplemental Instruction

- In Fall 2001 a collaboration was made between the learning center and the Nursing Department based on the concern that many pre-nursing majors were not passing the prerequisites to enter the school in their junior year.

- Courses were Chemistry, Anatomy and Physiology, and Physics
The SI Nursing collaboration varied from the model in the following ways:

- SI sessions were held primarily for pre-nursing students
- SI sessions were held in the nursing building to help make freshmen feel part of the school
- An academic coordinator in Nursing helped to promote the program
Supplemental Instruction

The Tutoring and Academic Resource Center

- Recruited, hired, paid, trained, monitored & evaluated the SI leaders
- Worked closely with the Nursing Dean, Associate Dean, and academic coordinator to follow the progress of the sessions
- Worked together to evaluate students’ success
Growth of the SI Program

- Fall 2001: one course A & P 202
- 2005: Chemistry 100 added in Fall
- Nursing supplemented the wages of the SI leaders
Supplemental Instruction at UWM Today

- Over 47 SIs are now being conducted
- At-risk courses are selected where the withdrawal, D and F rates are 30% and 25% freshmen attend
- SI leaders attend lecture courses, hold 4 review sessions per week
- SI leaders also conduct desk hours and are available online
Supplemental Instruction at UW-Milwaukee

- Econ 100,103,104
- Philosophy 211 (Logic)
- Spanish 103 and 104
- Accounting 201
- Calculus 211
- Math 105
- Art 106
- Comp Lit 133
- Chemistry 100,101,102,104
- Anatomy and Physiology 202, 203
- Physics 110
- Psychology 101
- Psych Stats 210
- Bus Statistics 210
- Bus 230: Info. Systems
Supplemental Instruction
Leaders

- SI leaders are model students who have usually taken the class
- Some are graduate students
- May be referred by professor or have been excellent tutors
- SI leaders attend course lectures & hold 3-4 review sessions per week
- SI leaders integrate course content with learning/study strategies
SI Structure

- **SI Coordinator(s)**
  - Can also be tutor coordinators
  - Provide hiring, training, and coaching
  - Assess the learning outcomes

- **SI Supervisors (Program Assts.)**
  - Can be experienced SI leaders
  - Can be graduate students, adult students, staff or LTE’s
  - Observe and coach SI leaders
Tutoring Model

- Individual or group tutoring
- Walk-in or weekly tutoring
- Required or voluntary attendance
- Learning deficit model often targeting at-risk students
- Wide range of courses
- Tutors can be peer tutors, professional tutors, or volunteers
- Tutors are considered experts in the subject
- Tutoring occurs outside of class
- Tutors don’t attend class
SI Leaders vs. Tutors

- SI leader meets w/ faculty often
- Role determined by program
- SI training, coaching
- SI leader earns about $10 per hr.
- Costs for SI staff

- Tutor meets faculty once
- Role determined by tutor coordinator
- Tutor training: 10 hours per semester
- Tutor earns $8 per hour
- Cost for tutor coordinator
Tutors vs. SI Leaders

- Jrs, Srs, or Grad students
- Content experts
- Not in class
- React to ?’s
- Work individually or in small groups
- Meets early with instructor/faculty
- Could also be TAs w/out grading duties
- Also study experts
- Attend class
- Prepares for session
- Facilitator of larger group sessions
- Meets often with instructor/faculty
# First Year Success and Retention
## Spring 2006 to Fall 2006

<table>
<thead>
<tr>
<th></th>
<th>#</th>
<th>% of incoming cohort</th>
<th>Completed Spring Term in Good Academic Standing</th>
<th>Completed Spring Term not in Good Academic Standing</th>
<th>Attrition through 2005-06 Academic Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2005 New Freshmen</td>
<td>4300</td>
<td>100%</td>
<td>69%</td>
<td>19%</td>
<td>12%</td>
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<tr>
<td>Tutoring</td>
<td>565</td>
<td>13%</td>
<td>80%</td>
<td>13%</td>
<td>6%</td>
</tr>
<tr>
<td>Supplemental Instruction</td>
<td>123</td>
<td>3%</td>
<td>91%</td>
<td>7%</td>
<td>2%</td>
</tr>
<tr>
<td>First Year Transition Courses</td>
<td>2400</td>
<td>56%</td>
<td>74%</td>
<td>17%</td>
<td>8%</td>
</tr>
</tbody>
</table>

Good academic standing = GPA of 2.0 or higher
# Comparison of SI First Year Students
## Fall 2006-Spring 2007

<table>
<thead>
<tr>
<th>Supplemental Instruction</th>
<th>N</th>
<th>Median ACT</th>
<th>Fall Outcome</th>
<th>Enrolled Spring 07</th>
</tr>
</thead>
<tbody>
<tr>
<td>First- Year Participants</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Students</td>
<td>118</td>
<td>21</td>
<td>93.2%</td>
<td>94.9%</td>
</tr>
</tbody>
</table>

| Not Participants         |      |            |              |                   |
| All Students             | 1992 | 22         | 77.3%        | 91.2%             |

| No Option                |      |            |              |                   |
| All Students             | 1933 | 21         | 73.9%        | 88.4%             |
Impact on Learning & Grades
SI Student Survey: Fall 2005

- SI helped me focus on certain topics and gave me a fresh perspective on studying.
- It clarifies topics that are hard to understand.
- Availability and knowledge of SI person.
- Going over material again and being able to ask questions – insight on how course is run.
- So far my test averages have gone up, and I am remembering more about the topic than previously.
- Smaller groups made help more readily available, and I got more questions answered.
Impact on Student Engagement
SI Student Survey: Fall 2005

- I feel more comfortable asking questions.
- More one-on-one attention and learning from another student.
- I met new people in my class.
- It has given me a chance to discuss concepts with other students.
- Having another student’s input and questions helped me fully understand the material.
- Makes me more motivated to study so I can find difficult spots and ask for help.
Attendance at SI Review Sessions

- Attendance is not required
- Group size can vary
- SI has variations on different campuses
- Some colleges require attendance
- UWM SI attendance pilot
  - Anatomy & Physiology 202
Promoting SI Attendance

- Website
- In-class promotion
- Professor support
- Announcements in syllabus and on Course information platform
- Posters/Flyers/Handouts
- Emails to reflectors
- Bookmarks/Table Tents
Example: Early Warning Email

- Was your first test score or grade lower than you’d like to see? Why not take advantage of free tutoring or Supplemental Instruction (SI) services offered at UWM’s Tutoring & Academic Resource Center? Over 1000 students meet in groups weekly to review course content and answer their questions in 100 and 200-level courses.
- You are welcome whether you find a course challenging or want to ensure an ‘A.’
- Our 80 tutors and SI leaders are students who can guide you by answering your questions, highlighting important concepts, and assisting you with college study strategies for your course.
- Go to www.uwm.edu/Dept/TARC and click on ‘Appointments’ to apply for weekly tutoring. You can also stop in Bolton 180 or call 229-2779 to sign up for a time. We also provide walk-in and online tutoring services.
- Supplemental Instruction is offered for over 40 courses in Library WB42. Phone 229-5743 or check our website under Supplemental Instruction for courses/times, then come to any review session.
- See you soon to ensure your academic success!
Adaptations of SI

- Hundreds of institutions have adapted SI to meet the needs of their campuses
- One major question is: Students should be required to attend SI?
- How can we provide small group interaction with larger numbers/
  - Cost, space, and quality concerns
UWM A&P/SI Collaboration

- Received a grant from UW-System
- Will study pre-post scores of SI participants vs. non-participants
- Added a credit component in Spring 2008: Ed Psych 101, 1cr. Pass/Fail
- Will study the persistence, grades, and written essays of students
UWM’s SI Course

One-credit pass/fail course

- Time Management
- Note Taking
- Test Taking and Test Anxiety
- Memory and Test Preparation
- Studying Science
- Reading Textbooks
- Attend weekly SI review sessions
Role of Faculty

- Professors may recommend or screen SI leaders
- Professors meet to discuss course content with SI leaders
- SI leaders get professor’s attendance signature at UWM
- Professors can help promote attendance for SI
<table>
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<tr>
<th>Steps</th>
<th>Description</th>
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<tr>
<td>1)</td>
<td>Link to the institution’s need to improve student learning, retention</td>
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<td>2)</td>
<td>Define the program for your campus</td>
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<td>3)</td>
<td>Seek funding &amp; administrative support</td>
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<td>4)</td>
<td>Build a comprehensive program</td>
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<td>5)</td>
<td>Develop an assessment plan</td>
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<td>6)</td>
<td>Recruit faculty</td>
</tr>
<tr>
<td>7)</td>
<td>Recruit SI leaders</td>
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<tr>
<td>8)</td>
<td>Develop training program</td>
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