

Considering Supplemental Instruction for Your Institution

What is SI?

How do we Know it Works?

Johanna Dvorak, PhD

Cleveland State University

Cleveland, Ohio

March 25, 2008

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



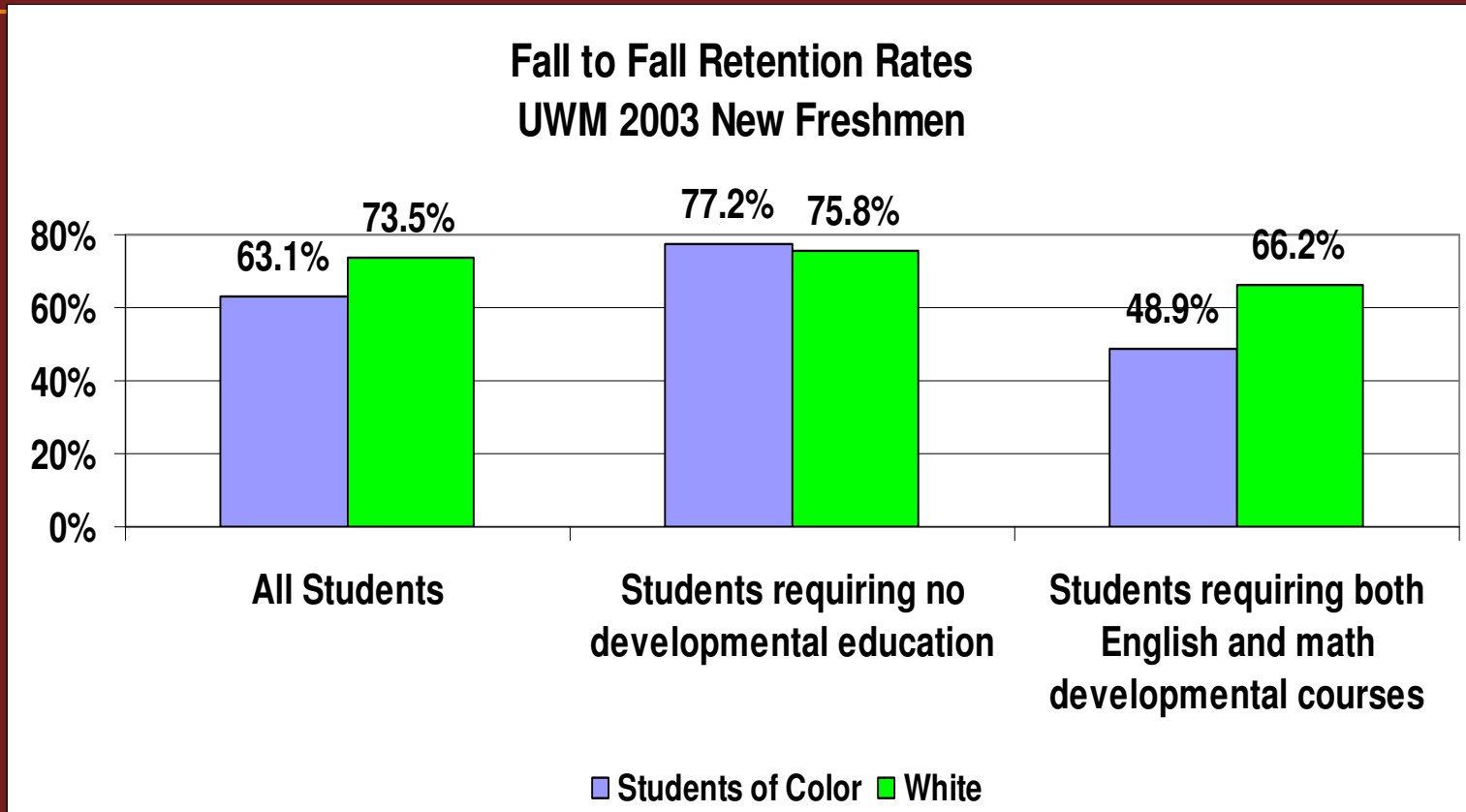
University of Wisconsin-Milwaukee

- 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





UWM Tutoring & Academic Resource Center: Program Goals

- **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

Supplemental Instruction

- **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
- Spring 2002: three courses: A &P 202, A&P 203, and Chemistry 103
- Fall 2002: four courses: A & P 202, A &P 203, Chemistry 101, and Physics 110
- 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

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

Good academic standing=GPA of 2.0 or higher

Comparison of SI First Year Students Fall 2006-Spring 2007

Supplemental Instruction First- Year Participants	N	Median ACT	Fall Outcome			Enrolled Spring 07
			Satisfactor y	Probation	0 Credits	
All Students	118	21	93.2%	6.8%	0.0%	94.9%

Supplemental Instruction Not Participants	N	Median ACT	Fall Outcome			Enrolled Spg 07
			Satisfactor y	Probation	0 Credits	
All Students	1992	22	77.3%	21.8%	0.9%	91.2%

Supplemental Instruction No Option	N	Median ACT	Fall Outcome			Enrolled Spring 07
			Satisfactor y	Probation	0 Credits	
All Students	1933	21	73.9%	22.9%	3.3%	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.

A2S



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

A2S

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



Instructor Feedback **Advisor Feedback**

Term: 1040 Spring 2004 Institution: University Wisconsin-Milwaukee
Class Nbr: 72361 Section: 001 Subject: MATH Catalog Nbr: 90
Description: Basic Mathematics

Instructor: Kaiser, Kelly A [Return to Class Roster](#)

New Freshmen Currently Enrolled First 1-8 of 8 Last

Campus ID: [redacted] Academic Career: Undergrad

Instructor Feedback View All First 1 of 1 Last

Feedback Date: 08/30/2005 Student: Un satisfactory

Progress:

Communicated with Student

Instructor Reasons

- Attendance
- Assignment
- Quiz/Exam
- Participate

Class: [dropdown]

Comments: [dropdown]

Campus ID: [redacted] Academic Career: Undergrad

Instructor Feedback View All First 1 of 1 Last

Feedback Date: Student: [dropdown]

Progress:

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

Steps to Developing a Supplemental Instruction Program

- 1) Link to the institution's need to improve student learning, retention**
- 2) Define the program for your campus**
- 3) Seek funding & administrative support**
- 4) Build a comprehensive program**
- 5) Develop an assessment plan**
- 6) Recruit faculty**
- 7) Recruit SI leaders**
- 8) Develop training program**

Contact Information

Dr. Johanna Dvorak, Director
Tutoring & Academic Resource Center
Bolton 659
University of Wisconsin-Milwaukee
P.O. Box 413
Milwaukee, WI 53201

414-229-5672

jdvorak@uwm.edu

www.uwm.edu/Dept/TARC