**UNBC**

Who needs the 3Rs?

Supplemental Instruction and Learning Community programs have been adopted by institutions within the US to enhance student success for the past decade, yet very few Canadian institutions have incorporated these practices into their teaching and learning structures. The techniques incorporated in these programs foster greater success for students. UNBC students involved in the current Supplemental Instruction programs are showing that the benefits go beyond good grades.

What are Learning Communities?

Learning Communities are ways of organizing students' time, curricula and learning experiences to foster student success through more effective academic and social experiences. These communities can be formed through linking or clustering courses, through adjunct seminars attached to a course or courses, through team-taught interdisciplinary courses, or even through the development of living-learning communities associated with living in residence halls.

Supplemental Instruction can be described as a form of Learning Community. It provides students with the social and academic environment and processes through which students are able to develop the knowledge, skills and abilities that are seen as desirable outcomes of any Learning Community involvement.
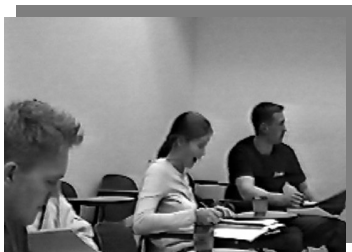
Underlying Theories and Philosophies

Both the Learning Community and Supplemental Instruction programs are based on philosophies similar to those of student services – to support self directed student learning, facilitate the development of students' potential, advance students' development of knowledge, and build a sense of community for students by providing support for student learning and personal development within a wider context than that of classrooms.

Learning Community and Supplemental Instruction programs reflect the student service philosophy - they are supportive, collaborative and developmental in nature. Faculty collaborate with other faculty or staff, and work more closely with students. At the same time, students are encouraged to work cooperatively and collaboratively with other students, developing self-discipline; self-understanding; cognitive, interpersonal and organizational skills; a sense of personal responsibility; and a sense of belonging - to a group or community.

A Summer Learning Communities Program was piloted at UNBC in July -August 2002 yet failed to attract sufficient co-enrolments to draw any major conclusions regarding the longer term success of the participating students. In contrast, the Supplemental Instruction program has seen excellent results, and these results have been consistent in more than one discipline over an 18 month period.
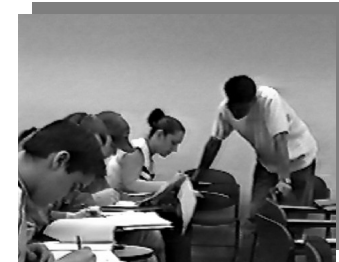
Supplemental Instruction (SI)

The SI program is built on a philosophy that promotes group interactions and minimizes the social and intellectual isolation often encountered by students in large classes, especially evident in first year courses. The program involves the use of small-group, peer-led sessions aimed at improving student study skills, reducing isolation of students in large classes, and providing assistance in the targeted course.

"SI helped me to achieve a higher grade than I expected I could get in this class"

"SI provided the 3Ps: Practice, Patience and Problem-solving"
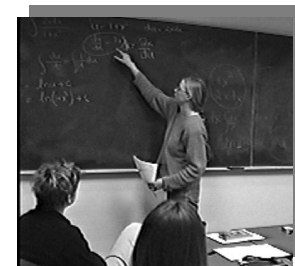
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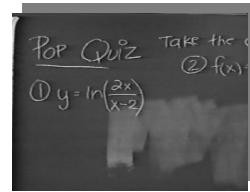
SI DATA –WINTER 2002 - MATH 152 (Calculus for Non-Majors)

GRADE (pt)	SI # students participating in 25–100% of SI sessions.	Percentage (%)	Cumulative Percentage %	NON SI # students who did not participate or participated in less than 25% of SI sessions	Percentage (%)	Cumulative Percentage %
A+ (4.33)	11	23.4	23.4	16	10.6	10.6
A (4.00)	4	8.5	31.9	13	8.6	19.2
A- (3.67)	6	12.7	44.6	19	12.6	31.8
B+ (3.33)	3	6.4	51	8	5.3	37.1
B (3.00)	4	8.5	59.5	14	9.3	46.4
B- (2.67)	3	6.4	65.9	9	6.0	52.4
C+ (2.33)	3	6.4	72.3	7	4.6	57.0
C (2.00)	4	8.5	80.8	7	4.6	61.6
C- (1.67)	2	4.3	85.1	9	6.0	67.6
D (1.00)	2	4.3	89.4	18	11.9	79.5
F (0.00)	5	10.6	100	31	20.5	100
Total	47	100%		151	100%	

Summary Chart

Total student enrollment for two sections of Math 152	198
Number of SI sessions offered in term	232
Total number and percentage of students who attended at least one SI	85 (43%)
Total contact hours of SI participating students	960
Mean number of sessions attended by SI participants	11
Mean size of SI sessions	4
Mean SI Participant Evaluation Rating of Helpfulness of SI (1=low,6=high)	5.8
Mean Final Course Grade of SI Participants	2.9
Mean Final Course Grade of Non-SI Participants	2.3
Percentage of SI students receiving a D or F grade	15%
Percentage of Non-SI students receiving a D or F grade	33%

"SI provides multiple examples and is helpful in anticipating exam questions"

"the SI Leader simplified all the information given in lecture into something I can understand"

" I learned more in SI than I did in class"

"the major strength of SI was that it was there, it encouraged me to study and brought me up to date…"

MARKS DISTRIBUTION   FSTY 405 (Silviculture II)

GRADE (pt)	FALL 2002 SI offered	Percentage (%)	FALL 2001	Percentage (%)	FALL 2000	Percentage (%)
A+ (4.33)	0	0	1	2	0	0
A (4.00)	2	4	3	6	0	0
A- (3.67)	6	12	5	9	4	6
B+ (3.33)	1	2	4	8	3	4
B (3.00)	8	15	4	8	6	8
B- (2.67)	7	13	3	6	5	7
C+ (2.33)	4	8	4	8	5	7
C (2.00)	8	15	8	15	10	14
C- (1.67)	8	15	5	9	12	17
D (1.00)	8	15	16	30	22	31
F (0.00)	1	2	0	0	4	6
Total	52		53		71	

Summary Chart

Total student enrollment (FALL 2002)	52
Number of SI sessions offered in term	25
Total number and percentage of students who attended at least one SI	52 (100%)
Total contact hours of SI participating students	726
Mean number of sessions attended by SI participants	14
Mean size of SI sessions	29
Mean SI Participant Evaluation Rating of Helpfulness of SI (1=low,6=high)	5.0
**Mean Final Course Grade of SI Class (FALL 2002)	2.36
Mean Final Course Grade of Non-SI Class (FALL 2001)	2.22
Mean Final Course Grade of Non-SI Class (FALL 2000)	1.83
**Percentage of SI Class (FALL 2002) receiving a D or F grade	17%
Percentage of Non-SI Class (FALL 2001) receiving a D or F grade	30%
Percentage of Non-SI Class (FALL 2000) receiving a D or F grade	37%

"SI provided a chance to solve problems that I may not have solved on my own"

"SI provided modeling in layman's terms"

SI DATA –WINTER 2003- MATH 152 (Calculus for Non-Majors)

GRADE (pt)	SI # students participating in 25–100% of SI sessions. (7 or more sessions)	Percentage (%)	Cumulative Percentage (%)	NON SI # students who did not participate or participated in less than 25% of SI sessions	Percentage (%)	Cumulative Percentage (%)
A+ (4.33)	7	20.6	20.6	11	9.8	9.8
A (4.00)	3	8.8	29.4	9	8.0	17.8
A- (3.67)	2	5.9	35.3	8	7.1	24.9
B+ (3.33)	2	5.9	41.2	4	3.6	28.5
B (3.00)	2	5.9	47.1	6	5.4	33.9
B- (2.67)	3	8.8	55.9	7	6.2	40.1
C+ (2.33)	3	8.8	64.7	5	4.5	44.6
C (2.00)	3	8.8	73.5	6	5.4	50
C- (1.67)	3	8.8	82.3	7	6.3	56.3
D (1.00)	1	3.0	85.3	22	19.6	75.9
F (0.00)	5	14.7	100	27	24.1	100
Total	34	100		112	100	

(one student was deferred)

Summary Chart

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Total student enrollment for two sections of Math 152	147
Number of SI sessions offered in term	126
Total number and percentage of students who attended at least one SI	54 (37%)
Total contact hours of SI participating students	676
Mean number of sessions attended by SI participants	12.5
Mean size of SI sessions	5.4
Mean SI Participant Evaluation Rating of Helpfulness of SI (1=low,6=high)	5.4
Mean Final Course Grade of SI Participants	2.63
Mean Final Course Grade of Non-SI Participants	1.97
Percentage of SI students receiving a D or F grade	17.7
Percentage of Non-SI students receiving a D or F grade	43.7

**SI offered

…the 3Cs: confident, competent, community oriented learners.

Confident, Competent, & Community Oriented Learners

Through programs such as Supplemental Instruction students develop competence in course content, leading to increased academic and self confidence that extends into their other studies. Furthermore, while participating in group settings, students develop a sense of community within their peer groups.

The benefits of the SI Program include the creation of a rich learning environment where students form learning partnerships (Community), obtain encouragement and guidance (Confidence), and ultimately thrive in their programs (Competence). This not only promotes academic excellence in students, it ultimately increases retention, a benefit to UNBC financially as well as academically.

"students lead it so they know what problems you will encounter and the easiest way to learn/study the material"
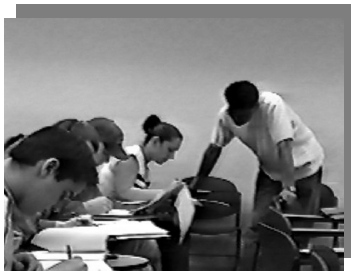
"(our leader) had made it through the same hellish class as us!"

What do SI Leaders say?

"My involvement with SI has been very positive. It is exciting to watch a group of people that one works with throughout a semester take the course content and work collectively to construct pathways to solutions that at the beginning seemed to unattainable…It was very exciting to see students that participated in my SI sessions meeting outside of these sessions to continue working on problems together and eagerly helping those having more trouble in the session than they themselves…"
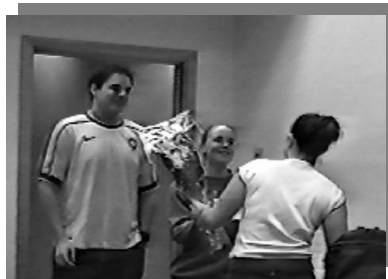
"I love (our SI leader)… She's terrific!"

Further benefits are to the SI Leaders themselves. They enhance already well-developed academic excellence, gain knowledge of teaching and learning strategies that can be transferred to other assignments such as TA-ships, provide leadership within the University, and enhance the reputation of UNBC as they move into post-graduate studies or their careers.

"the SI Leader simplified all the information given in lecture into something I can understand"

Cultivating the 3Cs

The Learning Skills Centre staff's incentive to initiate and implement Learning Community and Supplemental Instruction programs has grown out of a shared interest in learning improvement and student success. In partnership with faculty and student leaders, the LSC has assisted in transforming learning by creating a culture where students work with faculty and other students to strengthen the knowledge, skills and abilities that result in excellence in education.

Through partnerships we have been able to create the environment, implement the programs and provide the tools that help students learn more effectively, and these partnerships are heralding substantial benefits on all sides. Students are developing greater confidence in their ability to learn and work more interactively with each other and with faculty. Student leaders and tutors deepen their understanding of subjects and learning skills as they share their knowledge, skills and abilities with other students, and an overall improvement in academic performance is realized.

"very good math help …. without it we wouldn't have a clue in class"

"great review, good preparation for midterms"