A Pause of Research: Supplemental Instruction for Student Success in Upper-Division Business Writing

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Abstract

Based on a cooperative grant, Title V, from the Department of Education, a community college, College of the Desert (COD), and a satellite, university campus, California State University, San Bernardino-Palm Desert (PDC) were linked to provide student services for low-income, first-generation, and Hispanic students. Supplemental Instruction (SI) was one such service. Within upper-division business writing courses, over a four-year period, this paper's SI comparative study presents students' achievements and instructor observations. As the only business instructor to offer SI within an upper-division writing course, it became recognizable; there is a pause, if not a vacancy, of documented data to support SI's effectiveness within such courses. Therefore, this study urges faculty who teach similar courses to enhance student success with SI structures, whenever possible, and generate topic-related research so that, current field contributions can act as future support mechanisms. Descriptions, processes, theoretical frameworks, student outcomes, and inquiries plus, limitations are discussed.

Keywords: Supplemental Instruction, Faculty, Research, Students, Hispanic, Title V.

Introduction

Student support is always, and should always be, a major element of university life. Supplemental Instruction (SI) is student support at its best, because within this pedagogy, learners play an active role in their educational processes. SI leaders work collaboratively with an instructor and a program coordinator to facilitate peer assisted workshops designed to help students succeed with course related skill-sets and assignments (Duron, Limbach, and Waugh, 2006). SI is a highly effective, student educational resource (Hurley, Jacobs, and Gilbert, 2006).

Regardless of SI's solid pedagogical reputation, it's apparent; current research supporting SI within upper-division business writing is not readily available. Most SI studies focus on lower-division courses (Dale, 1969). This paper's call is to therefore, share one upper-division instructor's accomplishment; with the hope, more business instructors will consider SI for similar courses and achieve similar success. New research data may help allocate funds to support SI and its use within upper-division business writing. Limited has the potential to be changed to unlimited.

An agenda spark is needed; a shared inquiry is sought. Without support outlets and initiative opportunities, this study, and its SI courses would never have transpired. Origination was with a Title V, Cooperative Grant from the Department of Education, which sought to join two campuses (a community college and a satellite university); (1) College of the Desert (COD) and, (2) California State University, San Bernardino, Palm Desert Campus (PDC). This union focused on student services for the success of low-income, first-generation, and Hispanic students. The course title, "Expository Writing for Administration" included SI instruction for two academic quarters. This course was taught by the university's only business instructor to offer SI within an upper-division course. Course reviews prompted a realization; similar, current data is not available.

In the text that follows, SI is overviewed along with, the Cooperative Title V Grant, and SI's correlated theoretical frameworks. A comparative study, its data outcomes, and its subject-focused constructs are discussed. Study parameters include limitations, inquiries, and discussions.

2. The Process of SI

Various studies have been completed on Supplemental Instruction (Boud, Cohen, & Sampson, 1999; Rowland 2002; Mevarech, Zion, & Michalsky, 2007). SI has historically stressed enhanced student outcomes with problem-solving strategies combined within both, oral discussion and written composition (Berthoff, 1976; Flower & Hayes, 1980; MacLeod, 1988). Documentation shows peer-assisted learning to increase students' work ethics, responsibility, creativity, and group involvement. Procedures associated with SI follow distinctive patterns.

Dependent upon the student's past honor's course performance, and an instructor recommendation, a student is provided the opportunity to apply for the position of Supplemental Instructional Leader. The student is required to complete a hiring process (application and interview) to obtain the SI provided, peer facilitator role. (See Appendix II.) Once a hiring decision is made, the selected student earns an hourly wage for his or her SI leadership duties that entail, among other tasks, the facilitation of different forms of course specific workshops and study sessions. It should be strongly noted: SI does not put peers into instructional roles but as coordinators and guides. The successful applicant works under the instructor's guidance and is overseen by the campus appointed, Title V, Program Coordinator.

As a non-remedial approach to student learning, the chosen peer-facilitator attends all classes with the current course enrolled students. All interpretations of class materials are appropriately noted so that out-of-class meetings integrate learning objectives. Peer-facilitators have the ability to listen and accurately understand students, because they are students themselves. As part of the same cohort students can relate to one another well. Therefore, instructor to student discourse is lessened (Arendale, 1994). Student achievement becomes a joint, insightful effort. Prominent SI features include free study sessions to any student with a will to participate (COD Job, 2015). Sessions include different activities (i.e., lecture reviews, textbook discussions, exam preparation, and peer assignment edits, etc.) (Anderson, & Sampson, 1996). Sessions are informal, but stress formal study concepts (COD SI, 2015).

3. Title V and Course Specifics

To help Hispanic students succeed within postsecondary academic institutions, Title V of the Higher Education Act originated in 1998 to expand opportunities, programs and resources, on college and university campuses, within the United States. Determined by Title V, Hispanic-serving institutions provide a significant proportion of students' postsecondary opportunities even though; these institutions receive significantly less in funds provided by the State and local resources. Due to budget limitations, restraints are placed on these institutions to expand, improve, and grow programs (COD Grant, 2015).

Hispanic institutions are those where 25 percent of the student population is Hispanic, and 50 percent of the 25 percent are low-income (PDC, 2016). Both college campuses, College of the Desert (COD) and California State University, San Bernardino, Palm Desert Campus (PDC) meet the student population guidelines for Title V initiatives (Factbook, 2013 & PDC, 2016).

In accordance to grant guideline requirements, note: the US Department of Education deemed COD as the recipient. For PDC, jointly administered student support services included a Title V Program Coordinator, responsible for Supplemental Instruction (SI) and other assigned service duties.

The program coordinator assisted all interested campus instructors with SI course implementation. For two years, this coordinator helped staff two sections of this study's business writing courses with a peer facilitator. One course was staffed in 2012 and the other in 2014. An upper-division, capstone required, business writing course is considered an integral part of students' success in their higher educational pursuits and "real-world" endeavors (CSUSB, 2016). Thus, an understanding of this course and its goals are imperative.

3.1 Course Description and Learning Goals

For imperative clarity, the campus approved course description and course learning goals are provided.

Course Description:

- Writing related to business and public administration including documented research reports, summaries and analytical papers. Revision and rewriting will be required. Course fulfills the graduation requirement in writing proficiency. May not be counted for fulfilling concentration requirements for any degree program offered by the College of Business and Public Administration. No more than one of the expository writing courses (EDUC 306, ENG 306, HUM 306, MGMT 306, NSCI 306, SSCI 306) may be taken for credit. Students who have received a grade of no credit in any combination of the expository writing courses two or more times must meet with the 306 coordinator or designee to design a developmental writing plan as a condition for enrolling for a third quarter. All students must obtain junior status at the time of registration or their course request will be cancelled. Graded A, B, C/no credit. Prerequisites: Prerequisite: satisfaction of the GE written communication (A1) requirement and a minimum of 90 quarter (60 semesters) units of college credit. (GE=F1) (4 units) (CSUSB, 2016)

Learning Goals:

- Gain competence in the primary genres of their academic discipline (e.g., business, administration, management);
- Conduct meaningful research and incorporate the relative findings of that research in properly documented papers that reflect the expectations of scholarly material.
- Establish and clarify writing purposes, audiences, and rhetorical stances (such as tone, style, diction, and sentence structure) appropriate to selection.
- Discover and develop appropriate content for given writing projects, and organize that content coherently and effectively.
- Revise writing thoroughly by appraising it accurately (alone and in the company of other writers) and make constructive choices about content, organization, and rhetoric;
- Edit, proofread, and revise to ensure effective written communication of ideas and concepts.

4. Theoretical Frameworks and Foundations

Theoretical frameworks and foundations help make sense out of observation, outcomes, and experiences. Supplemental Instruction (SI) and its prominent features, processes, and outcomes, mirror a multitude of theoretical constructs. With synopsis and distinct parallels, for this paper, the SI Model, Cognitive and Social Interdependence Theories, Constructivist Learning, Cone of Experience, Keimig's Hierarchy of Learning Improvement Programs, and Action Research are incorporated.

As an intervention program, SI began with the Supplemental Instruction Model. Originally developed by Deanna Martin of the University of Missouri--Kansas City, during the 1970's, model constructs assist low-achieving students to improve performance which then, increases learning success (Martin & Arendale, 1993). The SI Model was a developmental perspective, conscious decision. The model's constructs assume that when the conditions for students to learn are present and structured properly, students will indeed learn. Jean Piaget (1977) anchored Martin's work and is credited with developmental research. Piaget argued intellectual growth and learning takes place with a series of steps (Blanc, et al., 1983; Martin, et al., 1977). Martin's model and Piaget's work is readily studied, improved upon, and continually implemented (1993). Specific to this study, step-by-step hiring and training processes along with, trained peer-facilitation from program administration, create the prime conditions for students to learn.

Compatible with Piaget's work is Edgar Dale's Cone of Experience (Dale, 1969). The cone's purpose is to help structure and design activities to meet students' learning needs. Usually used for working with lower-level students, this theoretical foundation is also applicable to upper-level, college students. Stimulated progressively, Edgar details concrete, hands-on experiences in addition to his abstract verbal and visual symbols. Instruction rests in the sensory experiences. The Cone of Experience is triangular in its configuration. Between the top and bottom layers, several other layers of instruction appear: talking, watching, demonstrating, and seeing. Sensory is implemented. Sensory elements naturally transpire within SI's student-focused, leader-driven workshops, course material and assignments are studied with hands-on approaches. As students work with their peers many discussions take place. Reconstruction of shared knowledge is apparent. Concepts become more detailed the more times they are reconstructed, thought about and conveyed. Comradery builds. Variables blend; and, SI becomes knowledge via experience.

The definition associated with the concepts of constructivist learning states, "gaining knowledge means gaining experience" (Blais, 1988, p. 3; Biehler & Snowman, 1997).

Due to SI's nature, social discourse is lessened between the instructor and students; in accordance, peers on similar levels have comparable values and personal commonalities. Comfort is natural. The ability to reach a unified goal enhances personal pride, motivation, and education. Cognitive Theories overlap and justify these concepts (Ladyshewsky & Ryan, 2006; Dion, Fuchs, & Fuchs, 2007). Cognitive processes are seen within workgroups as students gather voluntarily, proactively, and reactively; instead of, mandatory, actively, and passively (Bruner 1968; Flower & Hayes, 1981; Piaget 1977; Hurley, Jacobs, & Gilbert, 2006).

Any type of written composition is enhanced by feedback, revision, and collaboration (Hillocks, 1982). SI proves many times over that leaners can progress on theological levels outside of a traditional classroom or outside of the typical orchestration of faculty direction. Minimal authoritative dependence can at times, enhance learning outcomes. Hence, SI correlates to social interdependence theories (Vygotsky, 1978 & 1986). Students share knowledge and skills and peers prompt attention to many elements not observed by a single student's solo performance and/or silo study.

Keimig's Hierarchy of Learning Improvement Programs (1983) presents differentiation based on two elements; (1) the comprehensiveness of the program and, (2) the overall delivery system for which the program was institutionalized. Accordingly, programs that were integrated into the heart of the educational institution without isolation became highly ranked. In terms of long-term effectiveness, tutoring was ranked low on the academic support hierarchy with four major disadvantages:

1. The "drop-in" nature lacked systematic activity;
2. Assistance was provided, but not enough, to make a difference;
3. Assistance sought is untimely, it occurs after academic difficulty;
4. Needy students used tutors and writing resources the least.

According to Keimig's model, SI programs were ranked highly on effectiveness (1983), and SI is an effective resource for business writing students in association with or in lieu of, campus provided writing services and tutors.

Action Research is a problem solving mechanism; it derives from Deweyan tradition and is democratic in nature. The processes contribute to academic research while providing a framework to enhance student mastery with mutually beneficial relationships (Dewey, 1951). Action frameworks encourage academic researchers to work with students to identify their behaviors, their adversities, and their solutions. Also, Action Research can be used to encourage better communication protocols between academic collaborations. By its nature, this theoretical construct is social. By its nature, SI is also social.

Successful social problem solving requires input from a large percentage of theoretical frameworks and foundations. Effective research of all kinds recognizes issues and synthesizes the results in a sharable manner. The primary purpose of research is to gain knowledge and communicate that knowledge with others so that they too, may benefit and build upon theoretical frameworks. Thus, simulation of goals matches this study's purpose and documentation call.

5. Course Data and Study Results

Aligned with the results of this study's data sets, Supplemental Instruction (SI) proves effectiveness. Quantitative in nature, this study spans 4 courses over 4 years. Each course is offered once each academic winter quarter. Fifty percent of the class sections were taught with an SI structure where the other half was not. The later saw a traditional professor to student, lecture and class discussion structure. Note: all course enrolled students, regardless of income, family structure, or ethnic background, were provided SI resources for the quarters depicted in Table 1.1. (See Appendix I.)

The Hispanic population for each class offered was close to the campus demographics. Statistics at California State University, San Bernardino's Palm Desert Campus (PDC) record 56.7 percent (PDC, 2016):

1. Winter 2011: Hispanic Enrollment 57.2 percent
2. Winter 2012: Hispanic Enrollment 57.9 percent
3. Winter 2014: Hispanic Enrollment 56.2 percent
4. Winter 2015: Hispanic Enrollment 57.7 percent

With miniscule differences in Hispanic enrollment demographics, correlation coefficients in comparison to grades earned shows little variance. Significant improvements within written communication were made by students enrolled in the two SI course sections studied, upper-division business writing, "Expository Writing for Administration." Within each course, structures were similar to one another, because assignment guidelines followed a predetermined, set protocol established by the College of Business and Public Administration along with, the college's upper-division business writing instructors. Each class was taught by the same instructor who had routinely and consecutively taught the course for well over a decade.

Each class section did implement a different midterm exam. Varying quarters, the criteria for this exam required students to complete a letter, a memo, or an essay. Midterms were commonly graded by a committee of campus-wide, upper-division business writing instructors. With the exception this exam, course interventions were controlled.

Assignment review, grade scores, etc., were all completed by the same instructor who employs a pre developed rubric which details preset standards for each required assignment. Rewrites and late assignments are never accepted. Blackboard is used only for supplemental material, and its Turnitin feature is used for document submission.

The cumulative individual grade averages of each enrolled student are the weighted mean value of all grade points earned at quarter's end. Each student's final course grade percentage, within each individual course section, was summed. Totals were divided by the number of students enrolled in each class section to obtain the reported, "Average Final Grade." To help understand the differences in grade percentages, the following provides an overview of the predetermined, course-related, grading standards, as stated on the course syllabus:

- A (Excellent): Meeting course requirements with a superior level of performance. "A" is recognized to be an honors evaluation and constitutes scores within the 100-90 percentiles.
- B (Good): Meeting course requirements with a high level of performance will constitute scores within the 89-80 percentiles. B- is not an acceptable score for students applying for a Master's program in business.
- C (Satisfactory): Meeting course requirements with an acceptable level of performance and constitutes scores within the 79-73 percentiles. A 72 percent or below is not considered a passing grade within this course.
- Each grade category is subject to a plus or minus grade mark. For example, 90-92% will be a final grade of A-, 80-82 % is a final grade of B-, 87-89% is a final grade of B+, 70-72% is a final grade of C-, 77-79 % is a final grade of C+, so on and so forth.

Examining the data in Table 1.1 (Appendix I), and using the above stated grades standards, it is supported that students' grade averages went from a B- (lowest level of high performance) to a B+ (highest level of high performance) within those course sections which provided an SI structure. Worthy of mention, predetermined campus standards see a B- rating as a course grade insufficient for entrance into any campus master's program. To gain program entrance, a B- student must repeat this business writing course earning a final course grade of B or above (CSUSB, 2016). This jump in grade average alone, helps many low-income, first-generation, Hispanic and other students succeed, allowing them to gain, if sought, entrance into a post-baccalaureate program.

Also, supported by this table's data, the highest grade averages were achieved within a SI course section which had the smallest number of students enrolled. Not depicted in the provided table, but still worthy of mention, two-specific course related assignments saw the most notable grade increases; (1) resume development and, (2) persuasive business proposal. Both assignments are of vital mastery for business students in professional environments.

Also notable is that during each quarter of instruction (SI or traditional) students had out-of-class writing assistance available from campus provided, centers and tutors. Writing centers have been proven by research to be integral to the students' success (MacLeod, 1988) and therefore, the instructor routinely provides extra credit as an incentive for students to visit and work with center tutors (SI or traditional). Post SI intervention, the measure of quarters where only writing center resources were available for student assistance, overall grades did not increase.

This data and information demonstrates that SI can have significant positive outcomes on upper-division, business writing students. Its structures are both effective and beneficial for all course specific participants.

6. Observations and Limitations

The data for this project was focused on Supplemental Instruction (SI) in relationship to grade outcomes. Empirically validated or not, the instructor's class observations warrant mention:

- Students appeared more actively engaged in class activities.
- SI workshops eliminated student-faculty intimidation.
- Stronger peer relationships developed within SI sessions.
- SI leaders gained a faculty perspective and growth thereof.

Resume enhancement for SI leaders derived. By practice, students adopting the leadership, SI instructional role were better prepared for "real-world" and academic endeavors, such as: critical thinking, oral and written communication. In section summary, future data, by future SI studies, within upper-division writing courses, can further explore and validate one instructor's observation. Peer-facilitated learning can be an effective alternative to traditional teaching techniques within upper-division, business writing classes.

7. Inquiry Framework and Discussion

Supplemental Instruction (SI) is a pedagogy that may be unfamiliar to any one instructor; however, the processes embody student leadership and guidance for academic success. Faculty support of SI is needed through various approaches; worth mention, Gelmon, Holland, Shinnamon, and Morris (1998) feel, "regular and sustained faculty development activism" will provide success (p.112). Business Faculty: "Pick up the tab!" When students' written competencies increase, a large tip is left for all. To continue with success, SI research needs more current data on its effectiveness within upper-division business writing courses. The articulation of possible research frameworks will influence direction within clinical data (Schein, 1987). Reciprocal in sort, future infrastructure questions can be explored, as further inquiry is compulsory:

1. How effective was the use of SI in other business writing courses?
2. What issues are prevalent with SI maintenance and continuation?
3. What motivates faculty to implement SI into business writing courses?
4. What administrative support do business writing instructors need?

Future research can also focus on business related, case studies, obstacles and so forth. Maybe a contrast would be of interest? Why would business faculty be reluctant to commit to SI? All universities can benefit from published data which answers these exemplified questions. The arrangement of SI shouts success. Let's work to put it back, front and center, for business writing courses, anyway.

8. Closing Summary

Approximately 45 years have passed since Supplemental Instruction (SI) first became part of higher education as an intervention program (Martin & Arendale, 1993). Since then, its implementation has spanned a variety of academic institutions across the United States. One instructor's study shows upper-division, business writing students can benefit from the implementation of this pedagogy; however, current data on this subject is at a pause, if not a vacancy.

Develop curriculum, enhance student relationships, design programs, and teach, it's no doubt that business professors are key success factors for SI's continued classroom use and support. The future growth of SI in business writing depends on the instructors that coordinate these classes. More practice equals more research. One instructor's SI implementation enhanced written communication for students enrolled in an upper-division, business writing course, influenced with and by, SI structures, twice.

Appendix I

Table 1.1: Average Course Enrollment and Grade Outcomes

Supplemental Instruction (SI)	Academic Quarter	No. Students Enrolled	Average Student Percentage	Average Final Grade
No	Winter 2011	24	81	B-
Yes	Winter 2012	25	87	B+
Yes	Winter 2014	17	89	B+
No	Winter 2015	22	80	B-

Appendis II

Supplemental Instruction (SI) Leader Application Information

An SI Leader assists students in understanding course material, interpreting lecture notes, and reinforcing course material by leading workshops directed at increasing student comfort and familiarity with the course. SI Leaders attend all class meetings for their course designation; take notes, review homework and all assigned class material to ensure a shared awareness of the classes' progression. Multiple SI workshops will be held outside of scheduled class time at an assigned location for approximately 1 hour, up to 3 times a week. In addition, SI Leaders will be expected to attend training sessions prior to the start of the semester, and hold weekly office hours. A prospective SI Leader can expect a commitment of 10 hours a week per assigned course (expect in weeks where holidays and semester breaks occur).

Job Responsibilities:

- Responsible for attending training orientation prior to each term, and remain in steady contact with the SI Coordinator.
- Required to attend the assigned course, be in contact with the instructor regarding course materials, and direction, and make periodic announcements in class about the availability of SI sessions to the students.
- Assist with department data analysis. SI Leaders must ensure that all feedback forms (survey, midterm survey, and end of term survey) are distributed and collected. Attendance data for each SI session must be collected and given to the SI coordinator at the end of each week.
- Hold regular office hours.
- Above all, SI Leaders must model professional behavior to students and staff and handle issues such as class standards, grades, and student complaints in an appropriate manner.

Minimum Qualifications:

- Prior success in the desired course with a grade of "A" or "B".
- Good interpersonal and communication skills are required.

Preferred Qualifications:

- An instructor recommendation from the instructor of the targeted course.
- HS Diploma and/or other degree
- Previous experience either as a tutor, or participation in SI sessions

Once you have submitted your application, an interview will be scheduled.

(PDC Support, 2016)

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