Integrative Business Education Focused on the Environment: A Description of the Sophomore Scholars Program, Its Effects on Academic Performance, and the Regulatory Focus of Its Participants

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The Sophomore Scholars Program (SSP), an innovative program for the delivery of core business courses to select sophomores at a university in the Northeastern United States, is discussed. The SSP required integration of discipline-specific subject matter and featured student-centered learning approaches such as site visits, cases, exercises, consulting projects, and large-scale simulations to enhance the educational experience. Each of these experiences focused on the environment. The results of the assessment of the SSP's impact on student learning as well as differences in SSP and non-SSP students' Chronic Regulatory Focus are discussed. Suggestions for program improvements are also presented.

INTRODUCTION

Evidence of the need for, and benefits of, integrated business education programs in which students are actively involved is substantial and growing (Berry, 2009). Therefore, business educators today strive for effective ways to integrate information from multiple business disciplines in their course offerings. They also seek effective ways for students to participate actively in the educational process. The Sophomore Scholars Program (SSP), an innovative pilot program for the delivery of core introductory business courses to select sophomores at a university in the Northeastern United States, was designed as a means of achieving these goals. In keeping with current trends in business education, the SSP required integration of discipline-specific subject matter and featured student-centered learning approaches such as site visits, cases, consulting projects, and large-scale simulations to enhance the educational experience. While others have presented ideas for integrating discipline-specific subject matter at more senior levels (e.g., Basile & Knopik 2011), the SSP was designed for introductory business courses. An environmental theme was featured in each of these experiences. The SSP was offered to students in both semesters of

their sophomore year.

We were particularly interested in the characteristics, performance, and perceptions of students who successfully completed introductory core business courses as part of the SSP program. Therefore, a study of the impact of the second-semester SSP is presented here. One concern of an interdisciplinary approach to the delivery of core business subjects is that some technical knowledge of individual functional areas may be sacrificed. This is a particular concern for introductory courses which are intended to be foundational for later discipline specific courses. Jocums, Puri, and Latif (2010) however, find no difference in functional knowledge of students participating in an experimental interdisciplinary program, as compared to students taking core business courses in the traditional manner. To assess if functional area knowledge was preserved in our program, we measured and contrasted student learning in the interdisciplinary program with that of a control group of students who completed the same courses delivered in the conventional manner during the second semester of the academic year. Student satisfaction with the class projects was also measured. We also tested whether the Chronic Regulatory Focus (CRF) (Higgins et al., 2001) of students who were attracted to and remained in the program differed from that of a control group of non-SSP students.

The paper begins with the theoretical justification for an integrative SSP that features active learning methods. This is followed by a discussion of Regulatory Focus Theory (Higgins, 1987). A detailed description of the SSP and the analysis of its effectiveness are then presented. The paper concludes with a review of lessons learned and suggestions for others who wish to implement integrative programs to deliver core business subjects.

THEORETICAL BACKGROUND

Trends in Business Education

Over the past several decades, there has been a persistent trend in business education, both at the graduate and undergraduate level, to make programs more integrative (e.g., Basile & Knopik, 2011). This represents a distinct departure from the traditional functional approach to business education and is motivated partially by the evolving needs expressed by employers. According to Miles (1985, p.66), commencing in the mid 1950s businesses started the shift away from seeking employees with straight functional specialization to those with "skills needed by the general manager to address broad organizational and business needs." This has further evolved, according to Aurand, DeMoranville, and Gordon (2001, p. 22), as companies such as Boeing, Ford, Hewlett-Packard, Coca-Cola, Xerox, Harley-Davidson, and Waste Management utilize "cross-functional teams and/or individuals with crossfunctional skills to achieve business success." These findings suggest that employers need graduates with the skills necessary to thrive in a cross-functional environment. So compelling is this need that in 2000, AACSB implemented standard C 1.3.E that the curriculum should integrate the core areas and apply cross-functional approaches to organizational issues. Regrettably however, when polling AASCB accredited undergraduate programs, DeMoranville, Aurand, and Gordon (2000, p. 27) find that fewer than five percent "had developed a comprehensive program that formerly addressed the need for crossfunctional integration of business principles." The authors' personal observations and experience lead us to believe that little has changed since then.

Barber, Borin, Cerf, and Swatz (2001) characterize existing approaches to integrative business education on the basis of both span (across disciplines, across functions, within a function) and degree of integration (sequential functional modules to fully integrative team-taught experiences), as well as teaching methods to implement integration (cases, simulations, etc.) and the level that the program is offered (junior level core or senior capstone). Berry (2009) offers advice on designing and delivering integrative courses and recommends the use of enterprise resource planning as a method of integration, while Stephen, Parente, and Brown (2002) recommend the use of large-scale simulations where students have the opportunity to engage in role-playing. Each of these approaches provides opportunities for students to work on cross-functional teams, providing the experience and exposure that is sought in the job market.

As discussed in Saraoglu, Yobaccio, and Louton (2000), the seminal work of Kolb (1984) laid the theoretical foundation for the role of active learning in the educational process. According to Kolb (1984), learning takes place in a repetitive cycle that consists of concrete experience, reflective observation, abstract conceptualization, and active experimentation. Ideally, each iteration leads to higher levels of awareness and understanding. Proponents of active learning methods are motivated by the belief that learning occurs best when students are actively involved with concrete experience (Adler & Milne, 1997; Foggin, 1992; Hill, 1997; Walters & Marks, 1981). Business simulations, case study competitions, and consulting projects with existing businesses all provide students with the opportunity to be involved in active learning.

Regulatory Focus Theory

Given the uniqueness of the SSP experience as compared to the traditional, stand-alone method of delivering core business subjects at this university, we were interested in exploring the characteristics of students that applied for, participated in, and completed the SSP as compared to those that received the business core in the traditional manner. As Regulatory Focus Theory suggests that individuals display chronic differences in the goal-pursuit strategies they prefer (Higgins & Spiegel, 2004), one of the participant characteristic we explored was regulatory focus.

Regulatory Focus Theory (RFT) is a theory of motivation that suggests that individuals differ with respect to the means by which they prefer to pursue goals (Higgins, 1987). According to the RFT, some individuals regulate their behavior to become their ideal self; they focus on becoming and being the person they would ideally like to be. These individuals pursue their goals in an eager manner and are considered to have a promotion regulatory focus. A promotion focus is reflected in a concern for positive outcomes and a desire to avoid missing opportunities to make progress toward a goal (Higgins et al., 2001). Conversely, other individuals are concerned with becoming and being the person they think they ought to be. A prevention focus is evident in a concern for negative outcomes and a desire to avoid making mistakes as goals are pursued.

Promotion and prevention focused individuals differ with respect to their propensity to take risks (Crowe & Higgins, 1997). Promotion-focused individuals are risk takers; they are willing to make mistakes in pursuit of their goals. Prevention-focused individuals, however, are risk-averse; they are less willing to take risks to achieve their goals. Rather, prevention-focused individuals take a more vigilant, cautious approach in pursuing their goals. They exhibit a 'conservative response bias' (Crowe & Higgins, 1997), preferring to avoid making mistakes.

These risk-propensity differences between promotion and prevention-focused individuals have been demonstrated with a variety of contexts. For example, promotion-focused individuals are more likely than prevention-focused individuals to own the latest high-technology consumer products (e.g., the most sophisticated cell phones) (Herzenstein, Posavac, & Brakus, 2007). They are also more willing to choose a product whose ability to satisfy has not been clearly established. Similarly, individuals whose promotion-focus is made salient are more likely to choose a risky, hedonic (e.g., cake) versus a healthy, less risky snack, e.g. fruit; (Sengupta & Zhou, 2007). Regulatory focus has also been shown to influence an individual's willingness to take on new behavioral challenges (Fuglestad, Rothman, & Jeffery, 2008). Fuglestad and his colleagues (2008) found that promotion focus predicted behavior initiation; promotion-focused individuals were more likely than prevention-focused individuals to initiate either a weight loss program or a smoking cessation program.

PROGRAM DESCRIPTION

The second semester SSP program enabled students to apply knowledge from three additional core business functions: finance, marketing, operations management. Delivery methods for the pilot SSP courses were quite different than the delivery structure of all other core business classes at the university. Students were divided into three groups (cohorts) and attended a five-hour block of classes with their cohort each Monday, Wednesday, and Friday morning. The block of time allowed for out-of-classroom

experiences (e.g., field trips, competitions) without creating conflict with other classes. Although class time was used to focus on a specific discipline (i.e., finance, marketing, operations management), the instructors communicated frequently with each other and made an extra effort to link what was being taught in their own class to what was being taught in the other classes.

Each student was assigned to a team within the cohort based on their grade point average, personality type, and gender. Students remained with their teams throughout the semester. Team members frequently worked together during class time and group projects were completed with the same group of team members. Because the group projects required integration of knowledge from each of the business disciplines, we expected the team work to foster learning of discipline-specific knowledge as well as development of the ability to integrate discipline-specific knowledge to solve problems.

The teams of students competed against other student teams within and across the cohorts. Judging these competitions were other university professors (in addition to the three course professors), administrators, and professionals from the business community. This provided external validation of grading as team rankings and subsequent student grades were influenced by the opinions of professionals other than the course professors. Grades on the integrative group projects weighed heavily in final grade calculation for each of the individual courses.

One of the challenges for the SSP was to recruit and retain students who valued and would benefit from the SSP. A promotional flyer outlining the features and benefits of the new program was distributed during class visits and by email to eligible students (i.e., those who had completed the necessary prerequisite introductory courses; Appendix A). Because the program added an additional layer of activity and involvement, we expected only those students with mid to high GPA's to be able to handle the demands of the program. We encouraged students with strong academic credentials to apply and virtually all applicants were accepted. It is possible that students who applied were more motivated to take ownership of their education, and more willing to take risks to achieve their academic goals than the average student at the university. No attempt was made, however, to recruit students based on their tendencies to be chronically promotion, or prevention-focused.

PROGRAM OBJECTIVES

Our primary goal was to enhance academic performance of SSP participants. Specifically, we wanted students to demonstrate mastery of discipline-specific knowledge and to demonstrate the ability to solve problems by applying their discipline-specific knowledge in an integrated manner. We sought to achieve these academic learning goals through i) integration of subject matter, ii) application of active-learning teaching methods, iii) involvement of students with members of the business community, iv) focusing on oral and written communication skills, v) providing opportunities for team participation and leadership, and vi) the development of strong relationships between peers and professors.

Although the SSP was introduced as a pilot program and initially offered to less than 15% of sophomore students, it was expected that after some modifications, in subsequent semesters the program would be made available for all sophomores. Therefore, our second goal was for students to enjoy their participation in the program as we expected that enjoyment would foster a good reputation for the SSP on campus.

One of the main challenges of a program such as the SSP is the recruitment and retention of appropriate students; it is important that participants in a program such as the SSP are well suited to it to reap the rewards that such a program has to offer. For example, some students may find it difficult to both i) manage the time demands of a more active and involving program and ii) succeed academically. Therefore, the third goal was to gain an understanding of some of the characteristics of students who successfully complete, innovative programs such as the SSP.

SECOND-SEMESTER SOPHOMORE SCHOLARS PROGRAM

Fifty-eight students approximately balanced by gender (53.4% male) participated in the second

semester of the SSP. Majors varied across the business disciplines (19% finance, 13.8% marketing, 8.6% management, 43.1% accounting, and 15.5% undecided).

For comparison purposes, a control group was also tracked during the second semester. The control group consisted of 39 students (64.1 % male) enrolled in finance and marketing courses that were delivered in the conventional manner (i.e., non-integrated). The control group did not include students who were enrolled in operations management as it was not possible for non-SSP students to enroll in operations management, finance and marketing at the same time. Control group majors were as follows: 28.2% finance, 7.7% marketing, 10.3% management, 35.9% accounting and 17.9% undecided.

Professors worked together to establish learning objectives (see Program Objectives), to establish a master calendar and master syllabus for structuring the delivery of the classes, and to integrate course materials across all three classes. In addition, one hour of the five-hour time block each day for ten weeks was allocated as a lab for a simulation project, or team meetings with faculty regarding a consulting project.

The integrated out-of-class group-project assignments were developed around the "green" theme and included a case competition, a large-scale simulation, and a set of consulting projects with a local recycling company. The "green" theme was chosen as faculty had observed that students in previous classes often chose to focus on the environment when given the opportunity to select their own project topic. Although each project required students to apply knowledge from all of the disciplines, the finance professor was responsible for managing the large-scale simulation, the marketing professor organized and oversaw the case competition, and the operations management professor coordinated the consulting projects.

Grades for the projects were based on a team's overall analysis and recommendations and the extent to which issues from each of the business disciplines (i.e., finance, marketing, and operations management) were addressed (See Appendix B for a sample grading-rubric). Each group project included a written component, the quality of which had a significant impact on the grade awarded for the project. The student writing policy (Appendix C) encouraged students to make every effort to ensure that their individual and group written work was of the highest quality. The three instructors worked together to arrive at a consensus grade for the team which was then credited to each of the discipline-specific courses. Since all of the project work was team based, peer evaluations of each team member were used to foster a fairer assessment of individual student grades.

The case competition focused on a company that was struggling with their efforts to attain enterprise sustainability. Teams within each cohort prepared a written report and an oral presentation of their analysis and recommendations. A panel of judges selected a winner from each cohort to advance to a final round of competition. In the final round, winning teams from each of the three cohorts competed with each other before another panel of judges. Faculty and judges alike were impressed with the quality of the team presentations, especially in the final round. Both the professors and external judges believed the degree of professionalism exhibited compared favorably to that of MBA students.

The business simulation, a modified version of a Business Policy Game (Cotter & Fritzche, 1995) was included as part of the SSP program. It was chosen for the SSP because Snow et al. (2002) found the business policy game to be especially beneficial when integrated into the course instruction. In addition, Ammons and Mills (2005) provide a successful example of integrated undergraduate programs using business simulations for experiential learning.

The Business Policy Game provided an opportunity to build on integration, the green theme, and team building. Each team produced a virtual consumer durable product and marketed it in virtual domestic and foreign markets in one of two virtual industry worlds. Products chosen were required to be environmentally friendly. A one-hour lab time three days a week at 8:00 in the morning during most of the semester was used for orientation to the simulation, instruction, decision-making and debriefing. Functional area specialization was encouraged within the teams, but ultimately the entire team was responsible for relative team performance. Although all functional specialists were not specifically required to attend each lab, because of the joint responsibility for relative team performance, all team members generally attended all labs.

Teams submitted sets of quarterly decisions for the third year of their company's life. Their decisions spanned the functional areas of business (i.e., financial management, marketing, operations management, and human resource management). Relative company performance in each industry world was assessed using a Z-score based on a weighted average of several cumulative company performance measures.

Teams also submitted a strategic business plan for years four to seven. The goal of the strategic business plan was to draw on insights and experience gained from running the company for year three, along with insights gained from analysis of data from the first two years of operation, to offer guidance that would propel the company forward and lead to development of a sustainable competitive advantage. Each team presented their strategic plan to a mock board of directors. Strategic plans were evaluated based on the team's critical assessment of their company's performance relative to historic and competitor performance, the suitability of their proposed strategies, and their understanding of the likely impact of their proposed strategies on company performance over the next four years. Four winning teams were selected to advance to a final competition. Several faculty and administrators played the role of mock board of directors during both the preliminary and final phases of activity, adding the element of realism.

The consulting project began with a tour of the participating corporation, a recycling business. Following the tour, key personnel from the corporation presented four projects for which they sought advice. Student teams acted as consultants for the corporation's four projects and during the semester, student teams worked closely with the corporation's top leadership team to develop recommendations. Each team in a cohort selected a different project, thus ensuring that all projects were addressed within each cohort. Student teams were expected to identify the scope of their project, develop a plan for communication with the instructor and corporation personnel, and prepare a written report of their recommendations. In addition, students were expected to present their findings orally. Teams who worked on the same project presented their findings to a panel of judges who selected one team to advance to a final round of competition. Three winning teams participated in a final competition at the corporation headquarters where the corporation's top management team served as judges.

PROGRAM ASSESSMENT

Student Learning

Because the SSP program featured a focus on integration across functional areas, we wanted to assure that this enhancement did not negatively impact the attainment of knowledge in the specific functions. Specifically, we used pre- and post-testing for the purpose of measuring the attainment of finance and marketing knowledge. The marketing questions were adapted from questions in the McGraw-Hill/Irwin test bank that accompanied the textbook assigned for the course (i.e., Kerin, Hartley, & Rudelius 2010). We attempted to assess operations management knowledge as well but because of problems with collecting data we were unable to conduct this analysis. The beginning-of-semester test (Appendix D) was administered approximately three weeks after the beginning of the semester as part of a battery of other tests. The end-of-semester test, consisting of the same questions as the beginning test, was administered approximately three weeks before the end of the semester. It was also administered as part of a battery of other tests. Students were unaware that the beginning and end-of-semester knowledge tests they completed were in any way related to their involvement in the SSP. Results were compared to the control group of non-SSP students

Integration of discipline-specific knowledge for problem solving was assessed through assessment and grading of the three class projects. Grading rubrics provided for each class project indicated that mastery of knowledge from each of the disciplines was expected for successful completion of the project (e.g., Appendix B).

Achievement of learning objectives was also assessed by asking students to report their perceptions of what they had learned on a 19-item questionnaire that was administered on the last day of classes. Perceptions of the discipline-specific learning gained from participating in the SSP were assessed with three items (*I learned a lot about marketing, I learned a lot about finance, I learned a lot about*

operations management) anchored with strongly disagree (1) and strongly agree (7). Similarly, perceptions of the discipline-specific learning gained from participating in the class projects were assessed with three items for each of the three projects (*I learned a lot about marketing, I learned a lot about finance, I learned a lot about operations management*) anchored with strongly disagree (1) and strongly agree (7) assessed attitudes about each group project.

Student perceptions of their learning about integration of discipline specific knowledge were assessed with four measures (Participating in a cohort program helped me learn how business disciplines (i.e., marketing, finance and operations management) fit together and The case competition/business simulation/consulting project helped me learn how the marketing, finance and operations management course content fit together) anchored with strongly disagree (1) and strongly agree (7).

Satisfaction

Given that our goal was to expand the SSP and given that student satisfaction would enhance positive word-of-mouth promotion of the SSP, we believed that it was important for SSP students to enjoy their learning experiences. Therefore, learning enjoyment was measured with three items (*I enjoyed the case study, I enjoyed the consulting project, I enjoyed the simulation*) anchored with strongly disagree (1) and strongly agree (7).

Chronic Regulatory Focus (CRF)

Although we did not recruit students to the SSP based on their CRF, we did expect some CRF differences in those who chose to participate in and complete the SSP versus those who chose not to. Participation in the SSP involved a certain amount of risk, and certainly more risk than participating in the same courses delivered in the conventional manner. The SSP required heightened interaction between students, between students and instructors, and between students and members of the business community. Thus, while it afforded students an enhanced learning experience, it also demanded more time and energy than the same courses taught in the conventional manner. For example, to set expectations for the pilot, the students were required to attend a one-day program orientation that focused on building team skills, case analysis skills, and report-writing and oral-presentation skills. The orientation program also stressed the degree of student effort needed and the significant change in culture necessary to be successful (Aurand, DeMoranville, & Gordon, 2001). Furthermore, the SSP was a pilot program and consequently, neither students nor faculty could fully predict the outcomes of the program.

Given that participating in the launch of the new SSP involved some risk, and given the evidence that promotion-focused individuals are greater risk takers and more willing to initiate behavior change than prevention-focused individuals, we expected that students who applied for the SSP would be more promotion-focused than those who chose to enroll in courses delivered in the traditional manner. Thus, we measured the regulatory focus of members of the SSP and the control group.

Chronic Regulatory Focus was measured with the Regulatory Focus Questionnaire (RFQ) (Appendix E) that was first introduced by Higgins and his colleagues (2001). Frequent reports of its use can be found in the literature (e.g., Herzenstein, Posavac, & Brakus, 2007; Hong & Lee, 2008) and evidence of its validity and reliability have been reported (Higgins et al., 2001). The RFQ attempts to capture an individual's feelings of pride regarding their preferred means of achieving goals. Six 5-point items measure preferences to pursue goals with a promotion focus and five five-point items measure preferences to pursue goals with a prevention focus. Thus, each individual has both a promotion and a prevention score. Consistent with previous work on CRF, each individual's prevention score was subtracted from their promotion score, resulting in a difference score (Zhao & Pechmann, 2007). Higher difference scores are indicative of a tendency to be relatively more promotion-focused whereas lower difference scores are indicative of a preference to relatively more prevention-focused.

RESULTS

Student Learning

Separate ANOVAs with program (i.e., SSP/non-SSP) as the independent variable and end-of-semester marketing knowledge and finance knowledge as dependent variables revealed that SSP students scored marginally higher than non-SSP students on marketing knowledge. SSP students also scored higher than non-SSP students on finance knowledge but the difference was not significant (see Table 1).

TABLE 1 END-OF-SEMESTER KNOWLEDGE SCORES

	SSP st	udents	Non-SSP		
	Mean	Standard Deviation	Mean	Standard Deviation	ANOVA
Marketing	9.23	1.80	8.51	2.00	F(1,76) = 2.74*
Finance	3.23	1.91	2.90	1.48	F(1,76) = .74

^{*} *p* < .10

Results of a paired-samples *t*-test shown in Table 2 revealed that participants in the SSP showed significant increases in finance knowledge scores from the beginning to the end of the semester. Results showed however, that marketing knowledge scores did not increase significantly from beginning to end of the semester

TABLE 2 SSP STUDENTS' KNOWLEDGE SCORES

	Beginning of Semester		End of S		
	Mean Standard		Mean	Standard	Paired-
		Deviation		Deviation	samples
Marketing	9.28	1.75	9.23	1.80	t(1,38) = .15
Finance	2.33	1.22	3.23	1.91	t(1,38) = 3.08**

^{**}p < .01

Student self-reports of their learning of discipline-specific knowledge gained from participating in the SSP were analyzed using one-sample t-tests with the mid-point of the scale (i.e., 4) as the test value. The results shown in Table 3 revealed that students reported that they had learned a lot about finance, marketing, and operations management. Results were significantly greater than the scale midpoint for finance (p < .05), marketing (p < .001), and operations management (p < .001).

Responses to the comments/suggestions question provided further evidence that students perceived that participation in the SSP was beneficial although they also reported that it was a very demanding program. Comments included: "a lot of work >BUT IT WAS WORTH IT, created amazing work methods, prepared us for real world situations"; "I think it a was a very challenging experience that really helped me understand material outside of the classroom. Although I was very overwhelmed at times I do feel I learned a lot."

TABLE 3
SSP STUDENT SELF-REPORT ON LEARNING

I learned a lot about							
		Std					
	Mean	Deviation	t	p			
Finance	4.45	1.55	2.13	< .05			
Marketing	5.53	1.19	9.38	< .001			
Operations Management	4.85	1.52	4.06	< .001			

Student self-reports of their learning of discipline-specific knowledge gained from participating in specific class projects were also analyzed using one-sample t-tests with the mid-point of the scale (i.e., 4) as the test value. Students reported that they gained a lot of marketing knowledge by participating in the Case Competition ($M_{marketing} = 5.11$, $SD_{marketing} = 1.28$; t(1,52) = 6.33, p < .001). The results showed however, that students were neutral with regard to learning about marketing gained from participating in the Consulting and Simulation Projects; reports of marketing learning for these projects were not significantly higher or lower than the mid-point of the scale (all p's > .10). Similarly, reports of learning of finance and operations management were not significantly higher or lower than the mid-point of the scale for any of the class projects.

Student self-reports of their learning regarding integration of discipline-specific knowledge gained from participating in the SSP and from participating in the class projects were also analyzed using one-sample t-tests with the mid-point of the scale (i.e., 4) as the test value. The analysis revealed that students believed that participation in the SSP helped them learn how to integrate information from different disciplines ($M_{integration} = 5.36$, $SD_{integration} = 1.18$; t(1,52) = 8.39, p < .001). Participation in the class projects, however, was not perceived as beneficial for learning how to integrate knowledge from the different disciplines to solve a problem (all p's > .10).

Although students reported that participating in the SSP had helped them learn how to integrate subject matter from the different disciplines, their ability to do so was not evident in the work they submitted. For example, grading of the Case Project revealed that students were able to apply marketing concepts in their analysis of the case ($M_{marketing} = 10.4$). Their scores for applying financial and operations management concepts however, were much lower ($M_{finance} = 3.73$, $M_{operations} = 3.73$). Only one of the eleven teams scored equally well in the application of marketing, finance and operations management concepts in their case analysis.

Satisfaction

Student self-reports of their satisfaction with specific projects were also analyzed using one-sample *t*-tests with the mid-point of the scale (i.e., 4) as the test value. The results shown in Table 4 indicate that students were satisfied with the group interaction on each of the integrative projects. The results also show that students were satisfied with the application of marketing concepts in the Case Competition and dissatisfied with the application of marketing concepts in the Simulation project. Satisfaction scores for the application of discipline specific knowledge in the other projects were not significantly higher or lower than the mid-point of the scale.

Anecdotal evidence based on conversations between faculty and students revealed two areas of student dissatisfaction. Students did not like to spend extra time on labs for the simulation project. Many students reported that the workload was already very heavy without adding a requirement to attend a one-hour lab each week. Secondly, although the satisfactions scores indicate that students were satisfied with group interaction, students told instructors that they did not like having team members assigned by the professors. They believed that this process unfairly advantaged some teams and disadvantaged others.

TABLE 4
SSP STUDENT SATISFACTION WITH INTEGRATIVE PROJECTS

	Case Competition		Consulting Project			Simulation			
		Std			Std				
Satisfaction with:	Mean	Dev	t value	Mean	Dev	t value	Mean	Std Dev	t value
Group interaction	5.91	1.36	10.18***	5.64	1.58	7.55***	4.94	1.87	3.68***
Application of:									
Marketing	5.11	1.28	6.33***	4.42	1.94	1.56	3.09	1.85***	-3.56
Finance	3.96	1.52	-0.18	4.15	1.89	0.58	3.60	1.89	-1.53
Operations Mgmt	4.72	4.66	1.12	3.70	1.72	-1.28	3.64	1.83	-1.43
Integration	4.22	1.33	1.17	4.06	1.57	0.27	3.64	1.83	-1.43

^{***} p < .001

Chronic Regulatory Focus

Analysis of Variance (ANOVA) with membership in the SSP as the independent variable and CRF difference score as the dependent variable revealed that the difference scores of members of the SSP were marginally higher than those of members of conventional sophomore classes. This suggests that SSP students are more promotion-focused than non-SSP students ($M_{SSP} = .80$, $SD_{SSP} = .82$, $M_{nonSSP} = .44$, $SD_{nonSSP} = .82$; F(1,76) = 3.60, p = .06). As expected, further analysis of our data showed that CRF scores did not shift over the semester. Results of a paired-sample t-test revealed no changes in CRF scores from the beginning of the semester to the end $(M_{T1} = .62, SD_{T1} = .84, M_{T2} = .54, SD_{T2} = 1.00; t(1,77) = 1.09, p$ > .10). Interestingly, while participants in the SSP differed from those in the conventional program with respect to CRF, CRF did not predict knowledge scores. Regression analysis revealed no differences between individuals who are dominantly promotion- or preventionfocused individuals with respect to marketing ($\beta = .02$; t(1,77) = .21, p = .83) or finance knowledge scores ($\beta = .01$; t(1.77) = .10, p = .92). This is consistent with RFT in that RFT suggests that individuals differ with respect to how they pursue their goals. RFT does not suggest, however, that promotion- and prevention-focused individuals differ with respect to which goals they choose to pursue, or with respect to their success in achieving them (e.g., good grades).

LESSONS LEARNED

Learning Outcomes

The specific learning goals of the SSP were to enhance student discipline-specific learning and to enhance their ability to integrate knowledge from a variety of disciplines when solving problems. Student self-reports were positive; SSP students reported that they learned a lot about finance, marketing, and operations management and that participation in the program had allowed them to learn how the business disciplines fit together. Anecdotal evidence also suggested that the SSP was successful in this regard.

Objective measures of learning revealed only partial achievement of the learning goals for SSP students, however. SSP students' finance scores were significantly higher at the end than the beginning of the semester while marketing knowledge scores did not improve significantly from the beginning to the end of the semester. Marketing knowledge scores at the end of the semester were higher for SSP students than for members of the control group whereas the SSP students' finance scores were not significantly higher than those of the non-SSP students' at the end of the semester.

It is noteworthy that SSP students' beginning- and end-of-semester marketing scores both exceeded 70% correct whereas neither the beginning- nor end-of-semester finance scores exceeded 30% correct. These differences between marketing and finance scores may be due in part to more care being taken to ensure that the finance questions addressed knowledge that would be acquired during the semester. The differences may also be due to the heavy emphasis placed on marketing in the students' introductory business course. It is possible that sophomore students have already attained a good understanding of marketing because of participation in previous classes.

Because our goal of providing enhanced learning was only partially achieved, we sought to identify strategies that could be employed to strengthen and improve the program. Following are suggestions that others may consider in their attempts to implement integrated business education programs.

1. Provide explicit information about the relevance of discipline-specific knowledge for each class project.

All professors agreed that better integration of course work and projects was needed. For example, although each group project assignment clearly specified that material from finance, marketing, and operations management should be integrated, many student teams failed to do this when conducting their analysis and making recommendations. Explicit information about the pertinence of each of the disciplines for each project may assist students in understanding the need to integrate material from all of the disciplines. Reminders to the students to consider and apply information from all of the disciplines in each of the group projects could also assist in achieving this goal. This may be especially true when working with sophomore students who are less than half way through their business education program. The decision to assign responsibility for project coordination to one of the faculty members may have contributed to students' inability to integrate discipline specific subject matter. We managed group projects in this manner, believing that having one instructor in charge of each project would ensure consistency in information students received about the project. While this did occur, what also occurred is that students thought about the Simulation as a finance project, the Case Study as a marketing project, and the Consulting Project as an operations management project.

2. Classroom space should be large enough to accommodate all students at one time.

Integration of subject matter could also be facilitated by having large classrooms where all students could gather and instructors could team teach the material. Regrettably, this was not the case with the current SSP; no classrooms large enough to accommodate all of the SSP students were available. Consequently, professors provided instruction independent of one another and students did not have the opportunity to observe all three professors simultaneously teach material from their respective disciplines. A classroom large enough to accommodate all students would allow professors to team-teach, thus increasing the possibility of integration of subject matter and decreasing their workload. Large classrooms would also permit greater coordination of lectures and activities and afford more opportunities for guest speakers.

3. Appoint a program coordinator.

Having a program coordinator to coordinate activities and communications would also contribute to greater integration of subject matter. Professors coordinated the SSP as well as delivering course content. Consequently, the time demands of coordinating the program impinged on the time available to focus on integrating course content. A program coordinator, who relieved faculty of coordination responsibilities, would allow professors to focus on assisting students to understand interrelationships between disciplines.

A program coordinator could also strengthen student/faculty relationships. A program coordinator could plan social activities that could assist in strengthening relationships between students and between students and faculty. Although it was hoped that social activities would be incorporated into the SSP, this did not occur. The time demands of coordinating and delivering course material prohibited faculty members from assisting students to plan and carry out these activities.

Satisfaction

Our second goal was to ensure that students enjoyed the program. While responses indicated that students enjoyed the case competition and the consulting project, they were less enthusiastic about the simulation. Students also reported dissatisfaction with the method by which student teams were formed. Following are suggestions to foster enjoyment of programs such as the SSP.

1. Ensure that the student workload is manageable.

The workload of the SSP was heavy by design, but it is possible that satisfaction was impeded by the course workload, specifically the work required by group projects. As previously mentioned, students were expected to attend many extra meetings outside normal class time for the simulation project. Students viewed this as having the workload of an additional class without getting additional course credit for it. This perception of the extra time required by the simulation project probably contributed to lower student satisfaction with the simulation than the other integrative projects. In addition, students were required to meet with members of the business community off campus for the consulting project and the simulation and consulting projects were both due close to the end of the semester. While our goal was to enhance learning by providing additional learning activities, it became evident that students found these extra learning activities very demanding and difficult to manage. Careful attention to the workload and scheduling of group projects is needed to ensure effectiveness of such assignments in enhancing learning. In addition, since the traditional stand-alone business core classes were running in parallel to the SSP, students frequently compared challenges faced in the SSP to those of the path not taken. Although the SSP was promoted as being different, and students received extensive orientation to the specific differences, they seemed to be constantly surprised that they were receiving something different than non-SSP students received. Thus the 'curse' of the pilot program may have mitigated the level of student satisfaction with the SSP.

2. Allow students to select members of their teams rather than having team members assigned by the professor.

We made the decision to assign students to teams that would work together for all group projects. This decision was made with the expectation that this would allow students to develop strong relationships with peers and enjoyment and learning would be enhanced. We also expected that this would allow students to develop their team participation and leadership skills. Surprisingly however, some students complained about being assigned to teams (versus choosing their own teams) and about being stuck with the same team members for the entire semester. It is unlikely that learning is enhanced or that team participation and leadership skills are developed in teams where team members are unhappy with their team. Thus, future programs should consider allowing students to form their own teams. This would be especially effective if, early in the semester, students were given opportunities to get to know one another by working with a variety of classmates on small team projects. They would then be equipped to select their own teammates. We expect this would yield greater student satisfaction and more effective teamwork, which in turn would contribute to enhanced learning and the development of team participation and leadership skills. Interestingly, despite this apparent dissatisfaction with the team assignment process, group interaction consistently received the highest satisfaction scores for the projects as shown in Table 4.

3. Allow students to change teams during the semester.

Inevitably, some students will be more desirable as teammates than others, so it is possible that even when students choose their own teammates, some discontent may arise. There could therefore, be some advantages to having students work on different teams during the semester. Real-world business demands the ability to work with teams of changing membership and to form working relationships in short time frames.

Chronic Regulatory Focus

Our final goal was to gain some understanding of the types of students who would be most likely to participate in a program such as the SSP. Our results show that, as expected, the SSP attracted and retained students who were more promotion-focused students than their counterparts in conventional programs. These results suggest that promotion-focused students are more willing than prevention-focused students to take the risk of embarking on and remaining with a new and innovative program such as the SSP to achieve their academic goals, whereas prevention-focused individuals are more likely to forego the opportunity to participate in such a program. This is consistent with Regulatory Focus Theory that suggests that promotion-focused students would eagerly try to become their ideal selves and would be willing to take risks to do so. Conversely, prevention-focused students would be more cautious in attempting to become the person they think they ought to be. Thus, we offer the following suggestions for encouraging participation of both promotion-and prevention-focused students in a novel program.

1. Manage risk perceptions of prospective students through carefully crafted recruitment messages if the goal is to attract both promotion- and prevention-focused students.

In spite of increasing appreciation of their benefits, it is recognized that integrative programs are not yet the norm for business courses. Consequently, there is greater uncertainty associated with participating in integrative programs. Therefore, if the goal of an integrative program is to attract all types of students, risk perceptions must be carefully managed. If the risks of participating in the program are perceived as being too high, our results suggest that prevention-focused individuals will not participate and will not reap the benefits that integrative programs have to offer. If, however, the risks are perceived as being too low, it is possible that promotion-focused individuals may not be attracted to such programs. In this case, promotion-focused individuals would miss opportunities for enhanced learning.

Careful crafting of messages about the integrative program could alleviate this problem. There is evidence that individuals attend to and are persuaded by information that is congruent with their CRF (e.g., Aaker & Lee, 2001). It is possible therefore, that the SSP program attracted more promotion-focused students because the recruitment message had a promotion focus (i.e., used phrases like 'a fresh approach to learning'). Different recruitment messages, therefore, that are designed with either a promotion or a prevention focus (e.g., focus on the challenges and excitement of the program [promotion] or focus on the soundness and security of the program or the risks of not joining the program [prevention]), may encourage participation of both promotion and prevention-focused students in newer, integrative programs such as the SSP.

2. Ensure that there is an appropriate and consistently applied risk-reward structure built into the program.

One of the reasons that individuals are willing to take on risk is that they believe they will be rewarded for doing so. Therefore, although the SSP attracted students who were willing to take risks, students expressed dissatisfaction with the program because it did not yield any special rewards. Honors students who completed both semesters successfully would get honors credit for courses in the second semester, but non-honors students who faced the same challenges did not receive honors credit for any course. This disparity led to more dissatisfaction among the non-honors students. Building appropriate and consistently applied rewards into higher risk programs will increase the probability that all students will be satisfied with the outcomes.

CONCLUSION

There is plentiful evidence that integrative business education programs are necessary to prepare students for the demands of business today. Graduates of business schools need to demonstrate ability to integrate and apply knowledge from a variety of disciplines in addition to demonstrating mastery of discipline-specific knowledge. This paper has described the application and analysis of a program that utilized active learning approaches while offering much-needed integrative skills to sophomore students.

The evidence provided is encouraging; it suggests that integrative programs enhance students' understanding and appreciation of the need to integrate knowledge from a variety of business disciplines. The evidence also suggests that integrative programs can be effective in teaching core business knowledge. Integrative programs are not the norm however, and while some students may choose to participate in courses delivered in an integrated fashion, others may not. The evidence presented here suggests that students who are chronically promotion- versus prevention-focused are more likely to participate in innovative integrative programs such as the SSP. Efforts to manage the risks associated with involvement in innovative integrated programs will ensure that all students reap the benefits of these important programs.

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APPENDIX A SPECIAL SOPHOMORE BUSINESS YEAR LEARNING EXPERIENCE

A distinctive, world-class, undergraduate learning experience will be launched in 2009.

In fall 2009 and spring 2010, sophomore students will have an opportunity to participate in the launch of a distinctive, world class, undergraduate learning experience: 2009-2010 Sophomore Experience. Students seeking a fresh approach to learning about the world of commerce during their sophomore year are encouraged to apply to this program.

In this program, each semester three required business courses will be delivered as a single integrated block to a cohort of up to 35 students who will work together throughout the experience. Professors will utilize teaching approaches that are highly interactive and supplement classroom activities with co-curricular experiences.

Why would you want to participate in the 2009-2010 Sophomore Experience?

The sophomore experience will provide you with the opportunity to set yourself apart, and to be part of a group that will set itself apart. Joining the 2009-2010 Sophomore Experience will provide you with the opportunity to:

- Enjoy a heightened learning experience with people who share your passion for excellence and for being successful business professionals.
- Learn core business concepts in an *integrated manner* by engaging in cases, projects, simulations, and exercises that that require cross-disciplinary analysis and solutions.
- *Network* with each other and with business people in the community.
- Learn and practice business skills in a *supportive environment*.
- Become better acquainted with great professors who can make business concepts come alive.
- Participate in active learning through site visits, case analysis and discussion, guest speakers, social events and more.
- Refine those much sought-after interpersonal skills associated with team participation and leadership activities as well as advance your oral and written communication skills.
- Demonstrate your ability to lead as an entrepreneur as you participate in the launch of this bold new program.

Program Features

- Selective admission.
- Integrative and experiential learning exercises and events.
- Extensive use of cases, simulations, & real-world applications, including guest lectures, site visits, etc.
- Close student-professor relationships, including open-door office hours, podcasting, and faculty participation in co-curricular events.
- Schedule that includes co-curricular and social activities that reinforce classroom experiences.
- Prominent involvement of students as course "delivers," participants, and designated leaders with respect to being mentors, serving as "gurus," and acting as classroom observers.

Key Program Ground-Rules

Participants should be 1) committed to an interdisciplinary approach to business learning, 2) committed to working on the development of their communication, leadership, and team skills, and 3) prepared to make a yearlong commitment to learning in a heightened learning environment.

Program Building-Block Elements

"Block scheduling" from 9 a.m. to noon (with students prohibited from scheduling classes in the 8 and 12 time slot) of three core courses each semester—to allow for out-of-the-classroom events, field trips; opportunity for faculty to plan for extended in-the-classroom learning events.

APPENDIX B TEAM MEMO RUBRIC SOPHOMORE SCHOLARS CASE COMPETITION

Team:

Category		1 Needs improvement	2 Satisfactory	3 Very Good	4 Excellent	Your Score
Background						
	Marketing					
Analysis	Operations					
	Finance					
	Marketing					
Problems	Operations					
	Finance					
	Marketing					
Recommended Solutions	Operations					
	Finance					
	Marketing					
Action Plan	Operations					
	Finance					
Total points	Marketing					
	Operations					
	Finance					

APPENDIX C SOPHOMORE SCHOLARS PROGRAM WRITING POLICY

Business students are expected to practice professional standards in writing. Therefore, all written assignments must meet minimal standards to be acceptable. These standards address 1) spelling 2) grammar and 3) punctuation.

The term Fatal Flaws refers to technical English errors and errors of form. Specifically, the following are

- 1. Misspelled words and/or misused words (e.g., there, their)
- 2. Misuse of the possessive case (e.g., 'many firm's employees' should be 'many firms' employees')
- 3. Confusion of the plural with the possessive (e.g., 'the firms employees' should be 'the firm's employees')
- 4. A run-on sentence (e.g., he went to breakfast then he went to class he went to lunch and then he went back to class.)
- 5. A fragment sentence (e.g. that helped him to achieve his goal)
- 6. An error in verb tense or lack of subject/verb agreement (e.g., students come back to class last week: the students is back to class now)

Papers with more than three fatal flaws marked by the instructor are unacceptable. The instructor will stop reading when there are more than three fatal flaws and will return the paper to the student without a grade. Papers returned because of Fatal Flaws must be corrected and resubmitted to the instructor by the date specified in order to receive a grade. Papers due the last week of class and during the final examination period. Grades on papers returned because of Fatal Flaws will be reduced by 10%. A re-submitted paper that fails the policy will receive a grade of 60%.

Assistance in meeting the writing standards

One way to avoid these errors is to seek the advice of the staff at the Academic Center for Excellence (ACE) or find a friend who has competent proofreading skills. You will also find The Elements of Style, Fourth Edition, by William Strunk, Jr. and E. B. White to be extremely helpful in writing your papers. You should own a copy. In addition, you should use the proper form of citation for references in papers designated by your instructor. RefWorks, a software package, can found in Bryant Library's Electronic Resources if you have questions on the proper format.

APPENDIX D EXAMPLES OF FINANCE AND MARKETING KNOWLEDGE QUESTIONS

Finance

- 1) A company expects sales to increase during the coming year, and it is using the Additional Funding Need equation to forecast the additional capital that it must raise. Which of the following conditions would cause the AFN to increase?
 - a) The company learns that it has excess capacity.
 - b) The company increases its dividend payout ratio.
 - c) The company begins to pay employees monthly rather than weekly.
 - d) The company's profit margin increases.
 - e) The company decides to stop taking discounts on purchased materials.
- 2) Which of the following would be most likely to occur in the year after Congress, in an effort to increase tax revenue, passed legislation that forced companies to depreciate equipment over longer lives? Assume that sales, other operating costs, and tax rates are not affected, and assume that the same depreciation method is used for tax and stockholder reporting purposes.
 - a) Companies' after-tax operating profits would decline.
 - b) Companies' physical stocks of fixed assets would increase.
 - c) Companies' cash flows would increase.
 - d) Companies' cash positions would decline.
 - e) Companies' reported net incomes would decline.

Marketing 1. The process of consists of dividing a market into distinct groups of buyers on the basis of needs, characteristics, or behavior that might require separate products or marketing mixes. a) market targeting b) market segmentation c) product differentiation d) market positioning e) market profiling factors are the most popular bases for segmenting customer groups due to their ease of use and measurability.

- a) Life cycle
- b) Demographic
- c) Psychographic
- d) Behavioral
- e) Situational

APPENDIX E REGULATORY FOCUS QUESTIONNAIRE (MODIFIED)

- 1. Compared to most people, how often are you able to get what you want out of life? (promotion)
- 2. Growing up, how frequently would you cross the line by doing things that your parents would not tolerate? (prevention, reverse scored)
- 3. How often have you accomplished things that motivated you to work even harder? (promotion)
- 4. How often did you get on your parents' nerves when you were growing up? (prevention, reverse scored)
- 5. How often did you obey the rules and regulations that were established by your parents? (prevention)
- 6. Growing up, how often did you act in ways that your parents thought were objectionable?
- 7. How often do you do well at the different things you try? *(promotion)*
- 8. How often have you gotten into trouble because you were not careful enough? (prevention, reverse scored)
- 9. I find that I don't perform as well as I would like to, when it comes to achieving things that are important to me. (promotion, reverse scored)
- 10. I feel like I have made progress toward being successful in my life. (promotion)
- 11. I have found very few hobbies or activities in my life that motivate me to put effort into them. (promotion, reverse scored)