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Contents

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Exploring the Motivational Benefits of On-line Formative Assessment in a College Classroom

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ABSTRACT

Since 1999, the presenters have been using formative assessment in their classes by requiring on-line pretests in various formats. In that time, they have discovered that providing students with this type of formative assessment has had a number of benefits. Chief among them was the fact that students appeared to perform better on exams and in the class in general when the formative tests were required.

Encouraged by this finding, the authors decided to review the literature on formative assessment to find out why that might be the case. The literature review suggests that formative assessment provides three primary benefits: providing feedback for students, providing feedback for instructors, and motivating students. Armed with this information, the authors decided to test formal hypotheses.

Over the past two years, they have collected data from students in their upper level undergraduate business courses. The initial results suggest that formative testing has indeed had a positive impact on student performance. It further appears that there may be a motivational benefit to the students that most past research does not fully explore.

The authors will share their experiences in this session, and will also share the findings from their preliminary analysis of their data. It is hoped the presentation will inspire more thought about the motivating potential of requiring on-line formative assessment in the classroom.

FORMATIVE ASSESSMENT

Formative assessment has been defined as evaluation used in the process of curriculum development, teaching and learning for the purposes of improvement (Bloom et al., 1971). According to Black and William (1998) who emphasize mastery learning, the core activities associated with formative assessment that result in improvement lie in the sequence of two actions. Students must perceive a gap between their present state and a desired goal; and students must understand the actions to close the gap.

The Formative Assessment Literature

Over the past several years, formative assessment has received increased attention from academic researchers. Wininger and Norman (2005) summarized the literature and argue that formative assessment has at least three key functions that bear on improving student achievement (a) guiding and modifying instruction by providing feedback information to instructors; (b) providing feedback to students; and (c) enhancing student motivation.

The Investigators' Experience With Formative Assessment

The investigators have been actively using formative assessment in the form of on-line pre-tests since 1999. As instructors, the investigators have three primary pedagogical reasons for using formative testing that are directly based on suggestions from the literature. First, they use formative assessment with the objective of motivating students to study before class. Second, results of formative assessment are used to establish a baseline of student knowledge that can provide the instructors with critical information about students' preconception

and knowledge gaps. Third, formative assessment can provide students with feedback to put them in control of their own learning by providing them with specific information about their performance that they can use to gauge the gap between their existing knowledge and the objectives for the course.

The initial evidence appeared to suggest that student's performance in class improved when formative assessment was a required part of the course. In addition, there was anecdotal evidence that students were changing the way they approached the course when the formative tests were required.

Students made such comments as "I find myself working harder in your course than my other courses". "In many of my classes, I don't read the book, but I do in your class". "Your course forces me to work in ways I have never had to work before". Comments such as these persuaded the authors to test formal hypotheses about the overall value of formative tests, and to try to quantify the types of changes that were being reported to them anecdotally.

HOW FORMATIVE ASSESSMENT WAS USED

The Experimental Group

The authors teach multiple sections of a single course that meets face-to-face two times per week. The course is called Organizational Behavior and is required for all undergraduate students in the School of Business. The only prerequisite for the course is that the students have at least Junior standing.

They work for a regional campus of a Big Ten University that is strictly a commuter campus. Overall, there are approximately 6400 students in the university. Class size for the Organizational Behavior course averages 35 students.

Demographically, there is a mixture of both traditional and non-traditional students. The average age of the students is 24.7 years. The average number of completed credit hours was 73. There were slightly more females in the class than males (52%), and since this is a commuter campus, no one lived on site. The average length of time spent commuting to and from class was 17.6 minutes.

Study Details

In 2004, the classes were taught using on-line pre-tests administered before students came to class. The course had a weekly cycle. Students were instructed to read the textbook, watch pre-recorded lectures, and take a pre-test before attending class. Apart from their scores, students did not have access to feedback from the pre-test until after class. In 2005, the class was taught by the same two instructors but without formative assessment.

Formative assessment tightly corresponded to the material in each chapter of the text book. The pre-tests were approximately eighty objective style questions written to cover all the major topics in each chapter. The pre-tests for a chapter were available on-line until 10:00 a.m. the day the material was covered in class. Assessment results were collected and feedback was provided electronically after class for each of the 19 formative chapter tests. Instruction followed the weekly cycle outlined above, with each weekly cycle treated as a series of independent events. Feedback provided at the conclusion of a week was not available to affect earlier student choices to view pre-recorded lectures, read the textbook, or attend class. Students were motivated by assigning a small amount of course credit for participating in formative assessment.

Immediately after completing on-line pre-tests, students received feedback that was limited to knowing their scores. This brief information was simply recorded scores passed on to students and should not be considered to be formative information that leads to actions to close the gap.

Instead, the process was structured to motivate students to read the textbook, because as long as they scored 60% or better, they were given a small amount of class credit for completing the assignment. They could take a pre-test as many times as they liked before 10:00 a.m. the day the material was covered in class. If students did not earn 60% on a particular pre-test, they were instructed to restudy the material and retake the pre-test.

Only after class, at the conclusion of a week, was feedback to students used in a formative sense. Full feedback was turned on at the end of a week, at that time, students were able to see each question along with their response and the correct response. This closed the feedback loop, allowing students to study problem areas in more detail before taking summative exams. Seen in this way, formative feedback could not affect the number of chapters read, pre-recorded lectures viewed, or classes attended because formative feedback was provided after students had made those decisions.

Immediately before class, the instructors accessed student responses. The results of the pre-tests were used to guide in class discussion and interactions. Courseware analyzed a class's responses to each question that were grouped according to topics. Results indicated what percentage of the class chose each option. The instructors also could analyze the responses of individual students. For topics that a number of students missed, instructors tailored lectures and exercises to cover the material in more detail.

The Control Group

In 2005, the class was taught by the same two instructors but without formative testing; students were instructed to watch the same pre-recorded lectures, and read the same textbook before attending class. To maintain consistency between conditions, in 2005 the pre-tests were made available as study guides, although students were not required to use them.

KEY RESEARCH QUESTION

The key research question the authors wanted to answer was whether or not required formative assessment had a positive impact on student performance in their class. It was expected that students in the formative testing condition would perform better on the end-of-semester summative comprehensive final.

H1. Students engaged in required formative assessment would perform better on the final exam than those students who were not required.

RESULTS

H1 was supported by linear regression results. A significant effect was found in favor of formative assessment on Grades (formative testing: $F_{(1,177)} = 9.370$, p = .003, $R^2 = .05$, B = 6.063, Beta = .224 t = 3.061, p = .003). Students in the formative assessment condition scored six percent or roughly six tenths of a letter grade higher than students in the sections not using formative assessment.

DISCUSSION

The evidence strongly suggests that students who engaged in formative assessment did indeed perform better in the class than those who did not. The next question, then, is why this happened.

The authors also collected data on questions regarding the amount of time students spent preparing for class, the number of text chapters they read, and the number of classes they attended. The initial evidence indicates that students who were required to take formative tests spent more time studying, read more chapters, and attended more classes than those who were not. The fact that actual student behavior changed as a result of requiring these tests suggests to the authors that there may be a motivational benefit to them, and has encouraged them to explore this question in greater depth in the future.

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Instructional Technology Applications in Finance Classrooms

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ABSTRACT

The use of instructional technology (IT) is becoming increasingly important. With the explosive growth of information technology worldwide, universities are under tremendous pressure to integrate its use in the classrooms. Finance offers a wide variety of opportunities for the productive use of technology in the classroom. We conduct an online survey concerning IT use in the classroom of finance faculty across the U.S. Our study has several contributions. First, our research highlights where finance faculty stand with regard to integrating technology into the classroom learning experience by documenting the way in which technology is being used. In addition, our results provide information on the perceptions of the faculty regarding the effectiveness of this technology relative to the personal costs involving in using such technology. We find that finance faculty value IT and believe it is effective in raising student performance; however, they tend to adopt only lower and midlevel technologies and do not take advantage of the higher technology tools available to them. Certain demographics of the faculty significantly affect their choice to use IT in the classroom. The implication of these results sheds light on why faculty use technology at the level they currently use it.

INTRODUCTION

The use of instructional technology (IT) is becoming increasingly important. With the explosive growth of information technology worldwide, universities are under tremendous pressure to integrate its use in the classrooms, as well as, in the distance-learning environment. Finance offers a wide variety of opportunities for the productive use of technology in the classroom. In addition to providing an efficient delivery system in the teaching of finance, there are many other areas where technology can be used productively. From the use of software for financial analysis and portfolio construction to the use of the Internet for instant access to global financial data, bank simulations, stock simulations, and many sophisticated online tools like beta calculation, portfolio analysis (Sharp's, Jensen's index, etc.), the possibilities are endless. Online interactivity through the use of discussion boards and chats has also extended the learning experience beyond the classroom.

Our study has several contributions. First, our research highlights where finance faculty stand with regard to integrating technology into the classroom learning experience by documenting the way in which technology is being used. Current research on technology in the classroom tends to rely on anecdotal evidence in a single classroom, using a single technology, or on the experience of individual universities. Our results shed more light on the contemporary status of using IT in

the classrooms of finance faculty nationwide.   In addition, our results provide information on the perceptions of the faculty regarding the effectiveness of this technology relative to the personal costs involving in using such technology. The implication of these results sheds light on why faculty use technology at the level they currently use it.

LITERATURE REVIEW

There is extensive literature on IT and student learning, especially in the education and psychology disciplines. The literature on the use of IT in business disciplines is somewhat more limited.   These studies appear to be focused in several areas: motivations for the integration of technology, analyses of current use of technology, faculty and student perceptions of the effectiveness of technology use, and assessments of student learning outcomes from the use of technology in the classroom. The scopes of the studies range from the use of a single technology in a single subject area to a broad-brush view technology use of an entire university or discipline.

Sumner and Hostetler (1999), in reporting the results of campus computing surveys, noted that factors affecting the adoption of technology in the classroom are measured "in years or decades rather than in months". Peluchette and Rust (2005) investigate management faculty members' preference for IT in the classroom. They report that most of the faculty surveyed preferred using some sort of technology, but preferred low level technology such as overhead transparencies, power point, black board /white board. In a nationwide survey of finance faculty, Cudd, Lipscomb, and Tanner (2003) report that more than 86% of finance faculty use presentation and spreadsheet software to enhance lecture. They conclude, however, that finance faculty has hit a technology 'wall'. This effect has been noticed in other fields as well. In a study of criminal justice education, Haas and Senjo (2004) note that "Despite the finding that many faculty members hold favorable views toward technology, far fewer are actually integrating technology-based methods of instruction into their courses".

Many studies of classroom technology study the perceived or realized effectiveness of its use. Summers and Vlosky (2001) find that faculty and students believe that greater technology use enhance learning and future job market prospects. Clark III, Flaherty, and Mottner (2001), in the context of marketing students, report that students have differing opinions on the impact of IT on their learning, ability to get a job and job performance. Celsi and Wolfinbarger (2002) explore the evolution of innovation in the marketing classrooms due to new IT

and the process of faculty adoption of these technologies. Celsi and Wolfinbarger find that adoption occurs in three distinctive waves of use and innovation. Adoption is observed to occur in "fits and starts". Some studies of realized effectiveness of classroom technologies are very positive. In particular, studies that examine a single technology in isolation, tend to have positive outcomes. Krentler and Willis-Flurry (2005) find that using online threaded discussions as a complement to traditional Marketing courses enhances student learning. Similarly, Sauers and Walker (2004) find that students in hybrid courses, courses that use technology-assisted instructional methods such as a course management system, perform better than those in classes using traditional instruction methods. Young (2001) investigates the impact of implementing a technology rich learning environment (including the use of laptops in the classroom) in a marketing class. In general, the marketing studies found overall success with the program measured in part by the increase in the number of marketing majors at their university.

Not all studies are as positive. As early as 1996, Johnston and McCormack (1996), in the context of an Australian university, state that the real changes in teaching and student learning because of the use of IT are far less than expected. As recently as 2006, Meletiou-Mavrotheris and Fouladi (2007) find that the use of statistical software in the introductory statistics classroom, an application which would seem natural for the incorporation of IT, may not always be effective in "building student intuitions about important statistical ideas related to statistical inference". Young, Klemz, and Murphy (2003) find that instructional technologies, as well as student learning styles, are insignificant in determining performance outcomes. The one exception is the use of course management systems, which were found to improve performance outcomes. Both Harter and Harter (2004) and Rankin and Hoaas (2001) find that computer technology as a supplement to classroom activities in principles of economics courses do not increase student performance.

Several studies find that demographics often play a role in the use of technology in the classroom. While Peluchette and Rust (2005) find that course subject does not affect the choice of teaching technology, demographics do. The Peluchette and Rust (2005) study find that older and tenured faculty is less likely to use teaching technologies. Their results are supported by Rosseau and Rogers (1998).

Some studies attempt to define and classify available teaching technologies to aid faculty in their appropriate

choice of technology. Bryant and Hunton (2000) offer recommendations to accounting instructors regarding IT use and research areas in IT. They break classroom (educational) technologies down by type into computer-based learning and other technologies. They find that classroom technologies have progressed from one-way media such as television to interactive multimedia commonly used in distance learning. Similarly, Carey and Lassk (2002) create a technology and collaboration learning techniques matrix which classifies technology from low level, low collaboration, such as 'chalk and talk', to high level, high collaboration technology such as video conferencing. The technologies explored in the survey developed in this study are chosen from the matrix of technologies in the Carey and Lassk study.

In summary, with the exception of Cudd et al, there are few studies of IT use in finance classrooms. Our study complements Cudd et al's by providing a comprehensive survey of the extent usage of IT in finance classrooms. In addition, we examine how certain demographics of the faculty and school characteristics may have significantly affected finance faculty's choice to use IT in the classroom.

METHOD

We document IT use by finance faculty and their perceptions about its effectiveness through the use of an online survey. The survey has four parts. The first part of the questionnaire asks the respondents to share their personal profile such as faculty rank, appointment status, any administrative duties, among others. We ask for the characteristics of the respondents' school in the second part of the survey. For the IT usage in the finance classrooms, we ask the respondents to offer their frequency of use in 40 available IT tools. While the 40 IT usage statements should include all commonly used IT in the classrooms, we also have an open-ended statement for respondents to state any IT tools not explicitly mentioned in the questionnaire. The last part of the questionnaire asks the respondents' perceptions of interaction between IT application in the classroom and their teaching and research.

We sent the survey to 1,972 finance professors worldwide listed in Financial Management Association International membership directory on November 15, 2004. We received 230 responses within a few days. After three weeks, we sent a reminder to all the subjects, which resulted in additional 72 responses. This response rate of 15.3% is typical of survey studies [e.g., Alreck & Settle (1985), Peluchette & Rust (2005)]. Because not every respondent answers all survey questions, we present the survey results based on the exact response for each question.

RESULTS

Table 1 presents the profiles of the respondents. Of the 302 respondents, 112 or 37% are full professors, 91 or 30% are associate professors, and 71 or 24% are assistant professors. The remaining have titles of instructors/lecturers/clinical professors. Overwhelming majority, 278 or 92% of the respondents have full time appointees and 28% of them held some administrative positions, such as chairs, deans, and directors. About 49% have been teaching for more than 16 years, 40% between 6-15 years and only 11%, 5 years or less. There are almost 97% of the respondents having doctorate degrees. The finance specialization areas are primarily corporate finance (76%) and investments (50%) with secondary specializations in financial institutions (32%) and international finance (25%).

Table 2 presents the profiles of the respondents' schools. While we sent the email survey based on the global memberships of the Financial Management Association International, a majority of the respondents (98%) are residing in North America. Of all these schools, the overwhelming majority or 84% are AACSB accredited. In terms of the size of the Universities/Colleges as measured by the numbers of students, 48% of them have more than 15,000 students, 35% between 5,000- 15,000 and the remaining 5,000 or less. In terms of the size of the business schools, 53% had 2,000 or fewer students, 31% between 2,000-4,000, and only 16% had more than 4,000 students. In terms of the size of finance departments as measured by the numbers of finance faculty employed, 60% had 10 or fewer faculty, 32% between 11-20 faculty, and 8% had 20 or more faculty. For the reward/encourage system, more than half (54%) of the respondents report that there is no reward of using IT tools in the classrooms. Another 24% of them report that IT usage is part of the performance evaluation. It appears that there is not much incentive system in supporting IT usage in the classrooms.

Table 3 presents an array of technologies usage by the respondents. In order to be as exhaustive as possible, we also include some traditional less demanding IT methods (such as lecture, overheads and transparencies, group assignments, and discussions) in the IT statements. For the simplicity of the presentation, we assign values of 1, 2, 3, 4, and 5 to "never", "a few times per semester", "once per month", "once per week", and "every class period", respectively. Based on the assigned values, we are able to gauge the IT usage of a particular technology by ex-

amining the average rating of each respective IT tool. In addition, we also put the mode of each response in "bold" in the Table so that we know the majority of the response. There are several interesting findings from Table 3. First, "lecture" (as an IT tool) has the highest average rating of 4.6 among all IT tools. While there are ample IT tools available, lecture in every class period is still the dominant instructional style in the classroom. Besides lecture, "classroom discussion" also has a high average rating of 4.0. Thus, the low-demand IT meth-

TABLE 1		
SUMMARY STATISTICS OF THE RESPONDENTS' PROFILE		
Characteristics of respondents	**N**	**%**
Faculty rank (N=301)		
Full professor	112	37.2%
Associate professor	91	30.2%
Assistant professor	71	23.6%
Others (e.g., clinical professors, instructors, lecturers...)	27	9.0%
Current appointment (N=302)		
Full-time	278	92.1%
Others (e.g., part time, temporary...)	24	7.9%
Administrative Capacity (N=302)		
Dean	8	2.6%
Chair	37	12.3%
Director	20	6.6%
None	217	71.9%
Other (e.g., Ph.D. program director, coordinator...)	20	6.6%
Highest degree obtained (N=288)		
Master	14	4.9%
Doctorate	278	96.5%
Other (e.g., J.D., ABD)	6	2.1%
Teaching Experience in years (N=299)		
0-5	33	11.0%
6-10	59	19.7%
11-15	61	20.4%
16-20	39	13.5%
20+	107	35.8%
Finance area(s) of instruction specialization (N=302; can choose more than one area)		
Corporate	230	76.2%
Financial Institutions	97	32.1%
Investments	151	50.0%
International Finance	75	24.8%
Other (e.g., insurance, real estate)	50	16.5%

ods are popular among finance professors. Second, the finance faculty appears to have a certain favorable group of IT tools. These IT tools include (average rating in parentheses): financial calculators (3.5), computer projected presentations (3.8), course management tools (3.3), course web page (3.4), web editors (3.4), word processing (3.2), spreadsheets (3.5), and emails (3.6). Finance professors are comfortable with these IT tools and hence, they frequently use them in their classrooms. Third, it is uncommon for finance professors to use ad-

TABLE 2 SUMMARY STATISTICS OF THE RESPONDENTS' INSTITUTIONAL PROFILE		
Institutional characteristics	N	%
Size of University in terms of students (N=298)		
0-5,000	51	17.1%
5,001-10,000	49	16.4%
10,001-15,000	56	18.8%
15,001-20,000	42	14.1%
20,001+	100	33.6%
Size of Business school in terms of students (N=293)		
1-1,000	75	25.6%
1,001-2,000	80	27.3%
2,001-3,000	53	18.1%
3,001-4,000	37	12.6%
4,001+	47	16.0%
Size of Finance department in terms of number of faculty members (N=296)		
1-5	89	30.1%
6-10	87	29.4%
11-15	68	23.0%
16-20	27	9.1%
20+	25	8.4%
Location of your institution (N=298)		
Europe	2	0.7%
Asia	2	0.7%
North America	292	97.9%
Others (e.g, Africa, Central and South America	2	0.7%
Is your business school AACSB accredited? (N=302)		
Yes	254	84.1%
No	47	15.9%
In what way is your institution reward/encourage integration of technology in the classroom? (N=294)		
No reward	158	53.7%
Release time	10	3.4%
IT grant	49	16.7%
Part of annual evaluation	71	24.1%
Other arrangement (e.g., extra pay for distance learning course)	6	2.1%

	TABLE 3 INSTRUCTIONAL TECHNOLOGY USAGE OF THE RESPONDENTS IN THE CLASSROOM						
	Instructional Technology (N=302)	**Never**	**A few times per sem.**	**Once per Month**	**Once per week**	**Every class period**	**Avg rating**
		(1)	**(2)**	**(3)**	**(4)**	**(5)**	
1	Lecture	14	10	2	27	249	4.6
		5%	3%	1%	9%	82%	
2	Overheads and transparencies	94	73	25	31	79	2.8
		31%	24%	8%	10%	26%	
3	Financial calculators	50	42	20	93	97	3.5
		17%	14%	7%	31%	32%	
4	Video presentations	151	106	30	5	10	1.7
		50%	35%	10%	2%	3%	
5	Discussion	21	38	20	64	159	4
		7%	13%	7%	21%	53%	
6	Group assignments	50	116	78	38	20	2.5
		17%	38%	26%	13%	7%	
7	Peer Review/Grading	191	86	16	5	4	1.5
		63%	28%	5%	2%	1%	
8	Classroom experiments	206	67	14	8	7	1.5
		68%	22%	5%	3%	2%	
9	Computer projected presentations (e.g. Power Point,	35	49	21	41	156	3.8
		12%	16%	7%	14%	52%	
10	Graphics (Photoshop, etc.)	230	36	8	12	16	1.5
		76%	12%	3%	4%	5%	
11	Document camera	218	34	13	13	24	1.6
		72%	11%	4%	4%	8%	
12	Publishing (e.g. Acrobat, PageMaker, etc.)	195	44	17	24	22	1.8
		65%	15%	6%	8%	7%	
13	Static WWW pages (No interaction between instructor and students)	108	65	34	52	43	2.5
		36%	22%	11%	17%	14%	
14	Course management tools (e.g. Blackboard, WebCt,	98	20	19	36	129	3.3
		32%	7%	6%	12%	43%	
15	Course web page (syllabus, schedule, announcements, resource links)	78	32	18	36	138	3.4
		26%	11%	6%	12%	46%	
16	Web (HTML) editors (e.g., FrontPage)	195	29	20	26	32	1.9
		65%	10%	7%	9%	11%	
17	Spreadsheets	18	57	54	109	64	3.5
		6%	19%	18%	36%	21%	
18	Simulation software	193	66	22	14	7	1.6
		64%	22%	7%	5%	2%	
19	PC-Based stats (SPSS, SAS, etc.)	224	50	12	8	8	1.4
		74%	17%	4%	3%	3%	
20	Word Processing (e.g., Word, WordPerfect, etc.)	58	50	41	70	83	3.2
		19%	17%	14%	23%	27%	
21	Database Management (e.g, Access)	260	22	10	8	2	1.2
		86%	7%	3%	3%	1%	

#	Technology						
22	Pocket PC/ Palm Pilot	273	11	4	5	9	1.2
		90%	4%	1%	2%	3%	
23	Interactive WWW pages (allow interactions among nstructor and students)	184	48	25	17	28	1.9
		61%	16%	8%	6%	9%	
24	Streaming Video	240	36	11	7	8	1.4
		79%	12%	4%	2%	3%	
25	Interactive Television (ITV)	285	9	2	0	6	1.1
		94%	3%	1%	0%	2%	
26	Smart Board	269	4	13	6	10	1.3
		89%	1%	4%	2%	3%	
27	Multimedia	220	34	16	17	15	1.6
		73%	11%	5%	6%	5%	
28	Course Delivery System (e.g., Centra, WebEX…etc.)	271	6	0	7	18	1.3
		90%	2%	0%	2%	6%	
Asynchronous communication:							
29	•Discussion boards	212	25	18	20	27	1.8
		70%	8%	6%	7%	9%	
30	•Listservs	251	17	12	11	11	1.4
		83%	6%	4%	4%	4%	
31	•E-mail	39	26	43	92	102	3.6
		13%	9%	14%	30%	34%	
Real time communication:							
32	•Chat rooms, net meeting, etc.	259	18	4	10	11	1.3
		86%	6%	1%	3%	4%	
33	•MOOS	298	3	0	1	0	1
		99%	1%	0%	0%	0%	
34	•"Live" online class (HorizonLive, Centra, …etc)	290	4	1	3	4	1.1
		96%	1%	0%	1%	1%	
35	Online testing /evaluation	233	19	13	26	11	1.6
		77%	6%	4%	9%	4%	
36	Online interactive tutorials	227	27	15	17	16	1.6
		75%	9%	5%	6%	5%	
37	Wired classroom with computers/laptops	180	22	19	21	60	2.2
		60%	7%	6%	7%	20%	
38	Wireless classroom with laptops	225	13	14	9	41	1.8
		75%	4%	5%	3%	14%	
39	Groupware	286	8	5	1	2	1.1
		95%	3%	2%	0%	1%	
40	Desktop Video Conferencing	297	4	0	0	1	1
		98%	1%	0%	0%	0%	
41	Other Technology (trading floor, SAP, homemade software, flash animation)		12				
		0%	4%	0%	0%	0%	

vanced IT tools such as pocket PCs, graphics, document cameras, among others. Average ratings of advanced IT tools are relatively low and in many cases the choices of "Never" were made. This suggests that finance professors are not using the advanced IT tools. The results in Table 3 suggest that there is still room for advancement of IT applications in finance classrooms.

Table 4 presents the opinions of how IT applications interact with teaching and research. There are a total of seven statements asking respondents to provide a 5-point scale range from a value of 1 being "not at all" and a 5 being "a lot". The majority of respondents gives a "3" (i.e., about right amount of time) in terms of time spent to keep up with latest IT. In terms of IT skills and development of teaching material, the majority of respondents give "1" and "2", suggesting finance professors do not consider developing IT skills hamper the development of teaching material. For research, the respondents echo that the development of IT skills does not hamper research activities. For the student learning experience, finance professors agree that the IT usage positively affect student learning.

How do IT applications interact with personal and institutional profiles of the respondents? We examine how the underlying factors are contributing to the IT usage for the respondents. Based on the 41 IT responses (including the open-end statement), we calculate an IT usage index by averaging the values of the statements. We take a value of "2" for the 12 responses of in the open-end statements. Based on the IT usage index, we conduct a multiple regression analysis with the IT usage index as the dependent variable and personal and institutional characteristics as independent variables. Using a multiple regression model, we are able to examine if the personal and institutional profiles are contributing to IT usage and at the same controlling for the confounding factors in the analysis. To get robust results, we also calculate an alternative IT usage index after excluding the traditional "not so IT" statements in the calculation.1 The multiple regression results are in Table 5. The size and administrative duties variables are positively contributing to the IT usage. Larger universities and faculty with administrative duties tend to use more IT tools in their classrooms. Similarly, investments and international finance specialized professors, on average, use more IT tools as suggested by the positive estimated and statistically significant coefficients. Interestingly, AACSB-accredited schools and full professors of finance show less use of IT in the classroom as suggested by the negative and significant coefficients. Other variables are not significant, suggesting that whether a finance professor has a doctorate degree or whether his/her school has a reward structure does not enhance IT usage in the classroom.

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1 The two IT usage indices have a correlation of 0.96.

CONCLUSIONS

Our study examines the use of instructional technology in the classroom by finance faculty. Our results support many previous findings concerning the use of technology in the classroom; however, our study is wider in scope by looking at the use of a large number of available technologies used by finance faculty nationwide. We find finance faculty believes student performance is enhanced by the use of IT in the classroom; however, they tend to use lower and midlevel technologies and are not taking advantage of the many higher technology alternatives available to them. Finance faculty still use lecture and classroom discussions as their most commonly used teaching tool. Lectures and discussions are complemented with presentation software, spreadsheets, e-mail, and course management systems. Given the relatively low level of IT used by a wide cross-section of finance faculty, it is not surprising that the faculty do not feel time pressured to keep up with IT or its implementation in the classroom. It is also not surprising that they do not feel their teaching development or research is hampered by IT use.

We find that demographics do affect technology use. Professors with more teaching experience as demonstrated by achieving the rank of full professor tend to feel less pressured to adopt technology. It is interesting, though not surprising, that administrators – those who allocate the funds for implementing technology – are more likely to adopt IT in the classroom. Likewise, larger universities are more likely to allocate larger budgets to IT and therefore encourage technology use by simply making it more available. The finding that faculty at AACSB schools significantly use less IT may reflect on the research emphasis of many of these institutions. Those who do not use much technology or only use low level technology would not find it an obstacle to their research agendas. Other demographic information suggests that our results show that course subject does matter in the choice of IT tools. Our research did not include gender differences.

Have finance faculty hit the proverbial technology wall, as suggested by Cudd, Lipscomb, and Tanner (2003)? Our survey included a much broader array of technology alternatives than most previous studies, yet our findings were similar. It could be that finance faculty have simply found an efficient mix of technology and traditional instructional methods, and that while technology is rapidly improving, the time span between "fits and starts" suggested by Celsi and Wolfinbarger (2002) is truly measured in years rather than months (as suggested by Sumner and Hostetler (1999)). It should also

		Not at all				A lot	
	TABLE 4 **PERCEPTIONS OF INSTRUCTIONAL TECHNOLOGY USAGE TO STUDENT LEARNING AND** **ITS INTERACTION WITH TEACHING AND RESEARCH**						
		1	**2**	**3**	**4**	**5**	**Avg**
14	**Do you spend too much time keeping up with the latest technology? (N=296)**	43	81	117	47	8	2.6
		15%	27%	40%	16%	3%	
15	**Does the time you spend developing technological skills hamper your development of teaching material? (N=295)**	93	84	73	36	9	2.3
		32%	28%	25%	12%	3%	
16	**Does the time you spend developing technological skills hamper your research productivity? (N=295)**	60	75	70	57	33	2.8
		20%	25%	24%	19%	11%	
17	**Has your addition of higher instructional technology in teaching enhanced student learning? (N=296)**	15	29	77	111	64	3.6
		5%	10%	26%	38%	22%	
18	**Do students respond positively to the addition of instructional technology in the classroom (i.e., on-screen presentations, multimedia, WWW, etc.)? (N=294)**	11	23	68	119	73	3.7
		4%	8%	23%	40%	25%	
19	**Do students respond positively to the addition of instructional technology on the course web page (i.e., instructional materials, online evaluations, discussions, etc.)? (N=281)**	24	24	63	96	74	3.6
		9%	9%	22%	34%	26%	
20	**Do students respond positively to the addition of instructional technology in class assignments (i.e., assignments required to be PC or web based)? (N=285)**	20	28	75	104	58	3.5
		7%	10%	26%	36%	20%	

be noted that the technology imbedded within the technology tools (e.g., the technology in computers, calculators, online systems, etc.) is also improving which may not be accounted for in the comparison of IT studies over time. Additionally, new instructional technologies are being developed almost as fast as researchers can study technology use. For example, since this survey, the use of "clickers" and "blogs" are rising in popularity. Perhaps a future study will find these two relatively simple technologies on the most widely used list.

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TABLE 5 RESPONDENTS' IT USAGE IN THE CLASSROOM AND THEIR PERSONAL AND INSTITUTIONAL PROFILE				
	Dependent variable =IT index (definition 1)		Dependent variable =IT index (definition 2)	
	Coeff	t-stat	Coeff	t-stat
Intercept	1.7516	13.29***	1.5581	10.99***
Rank (if a respondent is a full professor, then value =1; else =0)	-0.1240	-2.13**	-0.1418	-2.26**
Administrator (if a respondent is an administrator, then value =1; else 0)	0.1309	2.56**	0.1342	2.44**
Doctorate (if a respondent has a doctorate degree, then value =1; else=0)	0.1585	1.56	0.1794	1.64
Size (if the university has more than 10,000 students, then value=1; else=0)	0.1702	3.10***	0.1898	3.21***
Experience (if a respondent has 16 or more years of experience, then value=1; else=0)	0.0291	0.52	0.0503	0.83
Full time (if a respondent has a full time appointment, then value=1; else=0)	-0.0526	-0.51	-0.0698	-0.63
AACSB (if a school is AACSB accredited, then value=1; else=0)	-0.1470	-2.01**	-0.1433	-1.83*
Corporate (if a respondent specializes in corporate finance, then value=1; else =0)	0.0681	1.22	0.0808	1.35
Institution (if a respondent specializes in financial institution, then value=1; else=0)	-0.0358	-0.71	-0.0364	-0.67
Investments (if a respondent specializes in investments, then value=1; else =0)	0.1090	2.29**	0.1191	2.33**
International finance (if a respondent specializes in international finance, then value=1; else =0)	0.1511	2.75***	0.1602	2.71***
Reward (if a respondent's school has reward system in using IT, then value=1; else =0)	0.0570	1.19	0.0640	1.24
Adjusted R-square	0.0919		0.0946	
F-statistics	3.47***		3.55***	
N	294		294	

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Teaching a Hybrid MBA Course:
A Case Study in Information Technology

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ABSTRACT

There is ongoing research into online, distributed, distance learning that has transitioned from mailing video tapes to fully-implemented web-based courses. Less research has been conducted on hybrid courses – those that combine face-to-face sessions with web-based sessions. This paper reports on a case study of a hybrid course that teaches Information Technology in an MBA program. Rationalization for the implementation of a hybrid course within a traditional MBA program is explained. Cautions and expectations from the literature are explored. Lessons learned from the faculty perspective are presented.

Context

The Setting

Loyola College in Maryland is a comprehensive Jesuit university located in Baltimore with graduate program extension sites in Timonium to the north of the city and in Columbia to the south. Following in the 450-year tradition of St. Ignatius of Loyola, the university delivers liberal arts and professional education with particular emphasis on leadership, communication, reflection, and social justice development. Loyola first offered the Master of Business Administration (MBA) in 1967. The Executive MBA program was introduced in 1973, the first of its kind in the Baltimore-Washington area and one of the first ten executive MBA programs in the country. All Loyola business programs are fully accredited by AACSB. There are currently about 1100 part-time evening MBA students and 150 executive students enrolled.

The competitive market for the MBA in the Baltimore/Washington corridor is experiencing an increase in providers and an increase in total market potential. Loyola's traditional MBA program has consisted of face-to-face sessions in two semesters with most courses comprised of 37.5 contact hours for 3 credits. We have also provided a number of alternative timing formats for the 3 credits such as 6-weeks, 3-weekend, 5-Saturdays, summer sessions, and international travel courses. Online courses have not been offered because our students report a high degree of satisfaction with the current formats, noting a reliance on in-class discussion to apply course material to different business environments. Since over 90% of our student population is working full-time, this application is an important part of the learning and networking experience. In addition, initial perception among the faculty has been that online courses can't have the rigor of in-class courses.

What's a hybrid course?

A hybrid course, sometimes called a blended course, is one that incorporates both face-to-face and online sessions. It generally follows a predescribed schedule. Sessions within the course may be synchronous or asynchronous depending on the technology available and the learning objectives of the course. The course described here consisted of five in-class sessions and ten online sessions that matched the 15-week schedule of our spring semester in 2007.

Why a hybrid course?

While some programs are facing financial pressures that make distance learning in all forms attractive (Fortino and Wolf, 2007), Loyola's interested in distance learning is more cautionary. Even so, several factors converged to provide the impetus for teaching a hybrid course in our evening MBA program.

1. *More online programs competing for prospective students.* Not only has the number of MBA programs in our region increased, but many of the additional programs offer online options. Our major competitor has announced a program focus in online learning. Loyola needs to balance its traditional face-to-face program with online offerings to attract students for whom this feature is important.

2. *More requests for program flexibility from our existing students.* Most of our current students do not want a fully-online program. However, flexibility is very important to overall MBA program satisfaction

3. *More telecommuting and virtual team management in our business community.* Our departmental advisory board reports an increasing number of dispersed project teams in their organizations. Since we're teaching management and leadership, we need to be able to teach the knowledge, skills, and applications of virtual teams. It makes sense to teach it by doing it.

4. *More mature technology to support a hybrid course.* Loyola has incorporated Blackboard as its course management system for over five years. The technology itself has matured in its advanced features and robustness. In addition, Loyola has increased the integration of our course management system in support of our MBA program as a whole. Faculty and student comfort with the tool makes migration to a hybrid course a smaller step than it might have been in the past.

5. *Hybrid is a reasonable first step into online learning.* There are many supporters of fully asynchronous online learning. However, the introduction of virtual community and online courses is easier to migrate and gain an audience for if it fits snuggly within an existing program. A hybrid course fits this need.

6. *A faculty member who wanted to try it.* Faculty acceptance is the key to any program development. Having a spirit of adventure and an avid curiosity, I had been watching the online learning and virtual community research with great interest. More students were reporting challenges in their professional careers with dispersed teams and management. It was a good time to jump in.

7. *An administration willing to support it.* The dean's office provided support to attend a conference on online and hybrid courses as well as books and training materials. There was also intangible support to bridge campus politics plus personal encouragement.

Literature Review

The research on hybrid courses is limited and cautious. Riffell and Sibley (2005) reported that large undergraduate biology courses using a hybrid course format yielded equivalent or improved student performance on online assignments as compared to traditional courses, with upperclassmen performing better than freshmen. While a case-method MBA course doesn't readily simulate this environment, the improved performance at the upper levels may be extrapolated to more mature students like those in an MBA program who *also* are more likely to have a positive outcome than undergraduate freshmen. This article supports my expectation of positive learning outcomes using a hybrid format at the MBA level.

Chen et al. (2006) reported on a more representative class environment—case method asynchronous online sessions. Their results included increased participation and higher quality of participation in the online environment. However, this increase in case discussion did not yield as high learning gains as did the face-to-face environment. With this article, I was cautioned to expect a lower level of learning than in the traditional course setting. This expectation helped me focus on clearly stating the expectations of each assignment, on providing students with specific grading rubrics for each assignment, and on remaining vigilant in guiding online case discussion for a maximum coverage of the learning objectives. I was, perhaps, more intrusive than I might have been without this expectation, making sure that learning points were interjected if they were not raised by the students themselves in a timely manner.

In a context more specific to hybrid courses, DeNeui and Dodge (2006) examined the frequency with which students used online resources through Blackboard to expand the course content. In this study, the authors reported a positive correlation between usage of online materials and positive learning outcomes. This article indicated the importance of using multiple resources for student learning to keep the course engaging. This encouraged the provision of video, online learning objects, and additional written resources for student learning.

Macdonald and McNabb (2006) provided a course delivery model that was a continuum between a classroom-only model to a distance-learning-only model. Their model placed the hybrid course in the exact middle of the continuum and describes programs at Babson College, George Fox University, and Duke University as examples of this format. This provided face validity for such a program and placed it in the universe of teaching formats for the MBA program.

Koh et al. (2007) studied ways to motivate participation in and social identity with virtual communities. While not specifically focused on hybrid courses, the authors learned that engagement in an online course through asynchronous postings will be influenced by the IT infrastructure as well as the offline interactions of the members. The authors reported the most important factors in encouraging participation were the perceived usefulness of the postings and the social interactions that occurred outside the online sessions. In the case of the hybrid course reported here, the Koh study affected the choice of technology and the high attention paid to the face-to-face sessions. It was important to select the most neutral technology so as to have a minimal artifact effect. This led me to use Blackboard, because this is the course management system our students already use. Additionally, I built face-to-face sessions that would maximize student interaction with each other. It was important to develop as much of a sense of community as possible given the limited duration of the course and the limited amount of interaction students had with each other prior to the onset of the course.

Fisher and Baird (2005) describe a proposed model for successful online learning design. They cite concerns about student drop-out rates in online courses (Carr, 2000) and state that "the issue of student retention will continue to grow as more institutions offer online learning opportunities (Fisher and Baird, 2005; p. 94). The authors prescribe relevance, accountability, motivation, and ownership as key elements of student retention in the online environment. Gaide (2004) also reports student expectations as a key element in the retention of students in online courses. The course examined in this study was a fully online course without options for a traditional course selection. However, these specific key elements also make the initial and ongoing face-to-face class sessions critical in sustaining student participation.

Finally, a pilot online session in an executive MBA section taught by this instructor indicated that those with learning preferences for oral communication would be less satisfied with a hybrid course. Those students who prefer visual communication of information may be more satisfied. Santo (2006) reviewed the learning style literature with a focus on online learning and reports that since the learning style assessments are self-reports, the results have been mixed. She concludes that computer skills and personal motivation have more of an effect than learning style on student satisfaction and success. Since enrollment in this section is voluntary and the technology is familiar, there was not any reason to

believe that learning style would pose any problems for this hybrid course.

In conclusion, while the literature provides some insights into the potential success for a hybrid course in an MBA program, there are not enough specific guidelines. Most tips or pointers were provided by trade journals or popular press based on individual course experiences, rather than empirical studies. The research indicates that given the context for the hybrid course described here in spite of the limitations noted, there is a reasonable probability for success.

The Case Study

Preparation

There were several preparatory steps taken before I engaged in teaching in an online environment. I read books and journals on both distance learning and virtual community. I attended sessions at the Information Systems academic conferences that presented research on distance learning and virtual community. I attended sessions of the Jesuit network dedicated to distance learning, especially in continuing education and graduate programs. I also attended not-so-academic conferences that focused more on the nuts-and-bolts of how to implement distance learning. Finally, I participated in an online course (Competence Assessment in Distributed Education) to expand my abilities to assess learning in this different environment. All of these preparations provided valuable lessons into what makes distributed education work.

The Course

As an instructor preparing to provide this hybrid course for the first time, I was aware of the inevitable comparisons with traditional sections of the same class. The course is taught using the case method with extended class discussion to guide the students to the learning outcomes embedded in the case materials. Because this course is in the core of the MBA, students must achieve the learning objectives as well or better than in the traditional course to prepare for the rest of their program. As an experienced instructor of the course, the content was not in question, but many other issues needed to be deliberated and decided. How would I engage the students in a dialogue similar to and as effective as the traditional section? How would I present learning materials beyond what the text offered? Would I have students work in groups or individually? How would

I facilitate student case analysis (posting as opposed to discussion)?

Course Content Presentation

Since I had taught this course several times before, I decided to re-use existing course material. Most of the material was in the form of PowerPoint slides with embedded hyperlinks. I also had some video materials and additional articles that I generally post for student reference. I used the PowerPoint slides as is, using the Notes section at the bottom of each slide to present the materials I would usually deliver orally in class. I had to think about my anecdotes and jokes carefully to determine what would be appropriate in the online setting. Even though the slides are generally used to present the main points of the lesson, the additional notes needed to be expansive, inclusive, and exhaustive. In addition, I provided reference articles for student preparation. To make the class sessions more lively, I provided links to video on a streaming media server to show the principle players in the cases describing the situational outcomes.

Course Discussion Facilitation

The challenge in this course was to encourage participation and discussion because without it, there would be no learning outcomes. In my traditional course sections, I do not grade participation. Instead I have students submit their notes following the class discussion to determine how many learning objectives they had met on their own before the discussion, and how many they had gleaned from the class discussion. With these notes, I'm able to provide feedback as to the quality and quantity of their demonstrated learning.

In the online setting, I had to facilitate initial participation by grading the quantity and quality of online postings. I provided a heuristic to the students, saying how many postings I thought would give them the grade they expected. I then said that a particularly thoughtful posting would be worth double value, while a weak posting would be worth only half value. This was deliberately specific in quantity so they would post a sufficient number of responses to case questions to get the discussion going. It was deliberately vague as to quality to get them to provide thoughtful answers to the case questions, but also to provide encouragement to each other in the postings. This combination also provided sufficient leeway for me to adjust my subjective grading should the postings be well outside the realm of expectations.

Group Work

In my traditional course, I divide the class into groups of three to do an in-depth analysis of one of the cases for the semester. Because that would require students to meet together, I decided not to have this requirement for the hybrid section. Instead, I would assign three students to do a more in-depth analysis and have them post during the first week that the assignment was due. The rest of the class, and the bulk of the discussion, would then take place in the next week following the initial analysis posting. This segregated the more in-depth analysis and set the stage for the online discussion the following week.

Grading

Once all the pedagogies were decided, the grading remained similar to the traditional setting. Each student was required to submit the same number and type of assignments as in the traditional setting. The only difference was that in the in-depth analysis, the students received individual grades instead of group grades for the assignment.

Outcomes

At this writing, the hybrid course is almost complete. Students have been appropriately engaged throughout the semester. Positive course outcomes from the instructor perspective include:

1. *100% retention.* Average section size in the MBA program at Loyola is twenty-five. Nineteen students enrolled voluntarily in the experimental hybrid section, and all of them completed the course.

2. *More class discussion.* Because of the explicit requirement for a specific number of postings in the class discussion, and because the discussion was not limited in time to the regular 2.5 hour session, there was an increase in the quantity of class discussion as evidenced by the number of postings in the discussion board.

3. *More thoughtful class discussion.* Because students were able to review, cogitate, and respond at their own pace, the class discussion postings were more thoughtful both as initial responses and as secondary responses to other postings. Students also were able to work in the setting and time frame most conducive to their own learning. Therefore, they were able to engage with the material and with the other students in a more thoughtful way.

4. *Multi-thread guided discussion.* Students are able to follow multiple discussion threads at one time. As the instructor, I was able to push multiple threads to a deeper level than would be possible in a traditional setting. I was also able to support multiple thoughts at one time through threading of discussions. Given the skills of students in the digital world to be much better than I at this multiple thought processing, it better suited the learner group to be able to do this. Students reported higher volume of multiple discussion thread participation than would be possible in a traditional setting.

5. *Comparable achievement on learning outcomes.* Though the final project has not yet been graded, all other case analyses and papers have resulted in similar levels of learning as in the previous semester. I determined no difference in the quality of submissions, the number of students needing a little extra time, or the number of questions regarding the specific requirements of the assignments.

6. *Students liked the course.* Of the nineteen students enrolled in the course, four were expectant fathers, two were new mothers, and ten reported significant travel requirements for work. All of these reported that they were better able to fit the course requirements into their personal and professional schedules than the traditional format would have afforded them.

7. *Instructor was able to travel.* During the semester, travel requirements would have made it difficult to hold all of the class sessions. However, with a laptop and wireless connection at hotels, I was fully engaged with the class online for the full semester.

8. *No colds.* It was a miserable winter in Baltimore. I usually get two colds in the spring semester due to coughing students and feverish office attendees. Though not empirically tested, I did note that I didn't get any colds this semester.

Of course, not everything is positive. This case study pointed out several negative outcomes as well.

1. *More intensive preparation.* In a traditional class semester, I'm able to provide students with a general outline of each session with some PowerPoint slides. The slides only list the main points, with the details filled in during the class session. In the hybrid course, it was important to think through and write out each session completely. While I might

have been able to answer student questions if something wasn't clear, I could not put in extra material that was omitted. There's only one chance to get it all in, and that's in the preparation.

2. *Time intensive monitoring.* In a traditional class, students listen to your presentation, and then other than a few questions, one doesn't need to interact with the students directly until the next session. The hybrid course in asynchronous delivery is a 24/7 time experience. Each student selects his/her own class time. As the instructor, I needed to remain vigilant to guiding the online discussion. If I skipped a day, the discussion could head off down a tangent that was not instructive and could deteriorate into trivia. During those times of most intensive discussion, I was required to put it at least an hour each day to guide the learning. What would have been limited to 2.5 hours in a traditional setting was expanded to over 7 hours in the hybrid setting.

3. *Different assessment.* As mentioned previously, in the traditional setting I don't usually assess classroom participation. Instead, I grade the outcomes of those discussions in the form of analysis papers and class notes. The hybrid course required a different thought process for assessment. It was necessary to grade both quantity and quality of postings to encourage an appropriate level of participation. It's sort of like "quality time" - you can't have it unless there's a base of time to start with.

4. *Students wanted to work in groups.* The initial case analysis didn't work well at an individual level. Students expected a high degree of performance and have learned that small groups provide multiple perspectives and skills. In addition, when the first person posted, he/she got the benefit of first-mover opportunity. The second and third students, even though they were supposed to be equally first responders to the case questions, thought the first person in got all the meat of the material. By the second case, the students requested to submit their postings in groups of three. They were able to collaborate by phone or e-mail to a level that provided a good response that measured up to their expectations.

5. *Don't know the names.* An important factor in student engagement and satisfaction in our MBA program is how quickly we can learn the student names. I can generally call each student by name by the second class session. This is helped by the

student photo roster in Blackboard. However, in the hybrid course, I didn't need to work as hard on the name/face connection. I sort of just knew their names. Then when the face-to-face sessions came around, I was less sure of their names and had to ask them more often.

Lessons Learned

From the instructor perspective, the hybrid course has much to offer the MBA student and program. However, it's not an easy road. The preparation is challenging and the time commitment to the students and the material can be daunting. In many ways, the ties to work are much stronger in the hybrid course, than in the traditional setting. The benefit is in watching students learn step-by-step as they build the understanding of the course objectives. The online discussion reveals strengths and weaknesses in course presentation and in logical progression of ideas. It is incumbent upon the instructor to mold the online experience to the benefit of all the students, even when you can't see them or hear from them all at the same time.

Students want more flexibility in a part-time program when home and work events make the traditional classroom setting difficult. They want to try new things and are motivated to learn the material even in a different setting. Students want to learn from each other. Even in the setting where there is less face-to-face interaction, they want to work with other students to perform high quality work and to support each other in case analysis. Students are motivated to do assignments thoroughly and to explore additional resources beyond what is required. However, when all is said and done, students want to know their classmates and their instructor. The social interactions are required for a positive outcome in the hybrid course.

There are additional materials available to improve the online experience. In mid-semester, I participated in a webinar on distance learning course design through a group called "Quality Matters" (2007) from the University of Maryland. This organization provides a rubric for assessing the quality of online materials and courses. This material will be helpful in the redesign and enhancement of the hybrid course for the fall semester.

Conclusion

This case study reported on the preparation and implementation of a hybrid course in Information Technology for an AACSB-accredited MBA program. The stu-

dent motivations for such a course were presented, the instructor and student outcomes were listed, and lessons learned were discussed. Future research will include the reports from student evaluations and reflections on the hybrid course experience.

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Building Better Teams in Both Online and Regular Classes by Mixing Personality Temperaments

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ABSTRACT

Research shows that there is value in having students participate in teamwork projects while in school to help them learn key skills that will enable their survival in future work environments. Organizing teams for businesses or college classes based on a variety of personality temperaments can strengthen a team's performance and produce more effective teams. This paper presents a discussion of the writer's experiences in using David Keirsey's study of temperaments (free and available online at www.keirsey.com) as the basis for team membership selections in both online and regular classroom settings.

Introduction

College professors know that adding student teamwork projects to coursework significantly adds to the employability skill levels of their students. But, students often complain about their team members not pulling their "fair share" of the work load in teamwork projects. Often only one or two members of a team do the vast majority of the team's work while the rest of the team does little or nothing to help complete the team's project. There is probably no magic "fix" to the teamwork problem in college classrooms, but the writer of this article has investigated the use of methodical mixing of personality temperaments in both online distance learning classes and traditional face-to-face classes to produce what may very well be better-functioning teams.

Background

Students who successfully participate in teamwork projects while in school may learn key skills to help them survive in their future careers. One study listed the following employee skills that employers see as "most sought after skills:"

- "Gets along well with others"

- "A team player"

- "Good communication skills"

- "A focus on reality over theory"

- "Motivation" (Crawford & Williams, 2002)

These skills can be "taught" through interactive team activities rather than straight lecture formats. Hackbarth (1996) concluded that students' learning the importance of sharing and working collaboratively may very well be more important than learning prescribed subject matter.

So, teamwork is definitely an important part of a student's training while in school. But, how should teams be formed for teamwork projects? For years, in traditional classes there have been a variety of methods used by teachers for team selections, including the following:

- The teacher assigns the team members based on who he/she thinks will be good leaders and good followers.

- The students self select their teams (sign up for the teams they want to be on).

- Students draw numbers from a "hat" (Team 1, Team 2, etc.).

- Names are put in a "hat" and names are drawn for each of the teams.

- Students draw M&M's or Jelly Beans (Reds=Team 1; Yellows=Team 2, etc.).

If students are allowed to self select their teams, how do they sign up? A few possible methods are: sign up on paper, sign up on a board in the classroom, or sign up on an online discussion board or via e-mail.

Self-selecting by students for teams is not the best method for selecting team memberships. Students are most likely to want to be on teams with their friends and with people with similar interests and work ethic. In setting up teams like this, the team can end up being very one-dimensional with everyone thinking of the same solutions and agreeing quickly with decisions because of friendships. Teams made up of a variety of personality temperaments are often more powerful because the members have different ways of looking at solutions to problems.

The writer of this article has used the mixing of student personality temperaments as a method of team selection in a variety of student learning settings. The process has been used with both high school students and college/university students. The process has been utilized at the college level in both undergraduate and graduate courses.

Stokes (2001, p. 24) suggests that "Identifying temperaments helps in understanding why individuals process and respond to the same situations differently."

Before beginning team assignments, it is a good idea to spend time with students in studying various personality temperaments. There are many good temperament studies and tests available for use, but the Keirsey Temperament study is available online and it is free (Keirsey, 2007). Before beginning teamwork, there is value in students' learning that:

> "...people are different from each other, and that no amount of getting after them is going to change them. Nor is there any reason to change them, because the differences are probably good, not bad" (Keirsey, 2007).

Keirsey (2007) identifies four main temperament groups: Guardians, Artisans, Idealists, and Rationals. Keirsey's Guardians make up 40-45% of the World's population and are concrete in communicating, reliable, cooperative, and do good deeds. Keirsey's Artisans make up 35% -40% of the population, enjoy arts and crafts, and are also concrete in communicating. Eight to ten percent of the population are Idealists. They are abstract in their communicating and are highly diplomatic. The smallest percent of the population (5% to 7%) are Rationals, and they are very strong willed and abstract in communicating (Keirsey, 2007).

Methodology

In preparing for teamwork, students should determine their individual personality temperaments by taking the online Keirsey Temperament Sorter II (Keirsey, 2007). The students should then compare their personal results with the dialog available online at the Keirsey Website that describes their temperament types and also mentions famous people who also have that same temperament type (Keirsey, 2007). The results within the four main temperament categories are free, and if the students want in-depth sub-temperament group information they can order and pay for that information. However, rather than asking students to pay for additional information, there is some value in asking them to study the four sub-temperament groups within their main temperament category and guess at which group they think they fit into the best.

A small assignment that has proved to be beneficial to the writer of this article is to have each student write a short, one-page paper on his or her temperament based on the results from the online questionnaire. In their papers, the students address ways in which the results compare favorably or unfavorably with their view of their real temperament. The papers can be posted to an online discussion board within WebCT or Blackboard for online distance learning classes or they can be discussed in informal presentations in regular face-to-face classes. Examples of the short discussions on the students' temperaments can be seen below in Figures 1 through 4. These examples are from WebCT discussion board postings of former students taught by the writer of this article. Student last names have been removed from the examples, and any grammatical errors in the students' postings have not been corrected. The examples will give the reader a sense of the enthusiasm that many students have for studying the different temperaments.

FIGURE 1
EXAMPLE OF A STUDENT'S POSTING ON A WEBCT COURSE DISCUSSION BOARD DESCRIBING HIS ARTISAN TEMPERAMENT.

```
Subject: Assignment 9 - ARTISANS -
Keirsey Temperament - reply here
Message no. 52
Author: Dr. Parris
Date: Monday, September 19, 2005
5:41pm
```

If you end up having an ARTISAN temperament in your Keirsey Temperament Sorter results, post a message here explaining why you do or do not think the results are accurate for you. ;)

Message no. 67
Author: BEN
Date: Friday, September 23, 2005 11:41pm
Having an Artisan temperament pretty much describes me. I love to joke around and try to make all my friends laugh. In high school, teachers gave me all the parts in plays that no one really wanted. They knew I didn't care to act out the part. When my friends and I get together it's my job to try to entertain everyone. Also, I suppose my subcategory would be the performer. I don't mind performing in front of an audience, it fuels the adrenaline. Two years ago I was an extra in "Big Fish," a movie that was filmed in Montgomery, and I really enjoyed that experience. This month I am also an extra in another movie being filmed in Birmingham. So, we'll see how that goes. Trying to entertain and please others seems to fit the Artisan.

FIGURE 2
EXAMPLE OF A STUDENT'S POSTING ON A WEBCT COURSE DISCUSSION BOARD DESCRIBING HER GUARDIAN TEMPERAMENT.

Message no. 95
Author: SAMANTHA
Date: Monday, September 26, 2005 5:43pm

After completing the Keirsey Temperament sorter, I learned that **I am a Guardian temperament.** I believe this is a pretty accurate result. When I think about my personal and business life, I agree that this description fits me. Guardians are very down-to-earth and practical people who like routines and like keeping everyone else in check as well. I guess that fits right in with my accounting and finance background!

I would say I am probably a Protector Guardian. In my family, at least between my brother and me, I am the one who is rational and grounded and always tries to keep everything in perspective. I am usually the same way with my friends. I like to have fun, but there is a difference between fun and getting off track and wasting valuable time. But I also feel that I am just trying to look out for everyone. I just want the best for everyone and I want to try to guide their thoughts and actions in the right way so they can achieve their own goals and what I know they are capable of.

I am definitely the Guardian at work, too. I am a stickler for the rules and deadlines, which for some is a little annoying, but someone has to do it! After all, I am an accountant! But, at the same time, everyone knows that if there is something that really needs to be done, they can ask me because I will get it done one way or another! I try to keep everything in a practical and realistic viewpoint, which to me, really helps in day to day tasks and goals, both professionally and personally.

FIGURE 3
EXAMPLE OF A STUDENT'S POSTING ON A WEBCT COURSE DISCUSSION BOARD DESCRIBING HIS IDEALIST TEMPERAMENT.

Message no. 69
Author: JOSEPH
Date: Saturday, September 24, 2005 9:58pm

The Idealist temperament is very close to my actual personality. The description of an idealist has them as very people oriented which is one of my strong attributes. To have strong relationships allows a person to create strong synergy and complete a task in a timely manner.

My personality is to hold to strong ethical values, this fits firmly in the personality evaluation of an Idealist. I have a very strong propensity to be dedicated and loyal; as a matter of fact the comments about the idealist relationships in families are very accurate in my case.

These traits have been valuable to me in business also, it has allowed me to be a strong leader and mentor. One of the greatest compliments I have ever received came as I was leaving my last job. My staff presented me with a card with note from each of my employees. The compliments came in the notes; each one of my employees referred me to as their mentor. I have found the best success a leader can have is through lifting your employees to success. If those who work for you are successful, then you will also be successful. My sub-type would be Champion.

FIGURE 4

EXAMPLE OF A STUDENT'S POSTING ON A WEBCT COURSE DISCUSSION BOARD DESCRIBING HIS RATIONAL TEMPERAMENT.

Message no. 72

Author: SHANNON

Date: Sunday, September 25, 2005

After taking the Keirsey online Temperament Sorter and receiving and reading my temperament I couldn't help but smile. **My temperament is rational** and it describes me to a tee. At my current job I am responsible for the day to day activities of the lines that I supervise. On a regular basis I am called upon to spend a week in another area of the plant and change it to make it more efficient. There are not many production lines in our plant that I have not visited and increased efficiency by means of labor reductions or increased productions due to line layout or process changes. After taking the Keirsey online Temperament Sorter and receiving and reading my temperament I couldn't help but smile. **My temperament is rational** and it describes me to a tee. At my current job I am responsible for the day to day activities of the lines that I supervise. On a regular basis I am called upon to spend a week in another area of the plant and change it to make it more efficient. There are not many production lines in our plant that I have not visited and increased efficiency by means of labor reductions or increased productions due to line layout or process changes. Sometimes I am on the lines 16 hrs a day working on a problem that is holding us back from these increases. I talk to everyone involved from the line workers to the engineers and compile as many ideas as possible. Sometimes when I explain to my supervisor the road that I am going down, he shakes his head in disgust and says that will never work. Nevertheless, 9 times out of 10, my solution is the shortest route between 2 points. I am not the most socially able supervisor in our department and have the reputation of treating everyone either all good or all bad. I don't have favorites; everyone is treated the same and sometimes I look like I am cold hearted because of the problem that I am working on today. The rational temperament very accurately describes my personality.

Once the students have an understanding of their own temperaments, they are now ready to put their "gifts" to good use in teamwork exercises. The writer of this article has used teams for business case studies, for use in critiquing research project plans, and for critiquing research surveys or questionnaires. A small team made up of a mixture of personality temperaments can produce better case studies with input from many different viewpoints. A student needing help in evaluating a research survey that will be used in a research project will produce a stronger, more powerful survey instrument if it has been evaluated by people from many different viewpoints.

In providing a means for team sign-ups utilizing personality temperaments, the teacher must first determine how many students in the class fall into the four main Keirsey temperament categories of Guardian, Artisan, Idealist, and Rational (Keirsey, 2007). Teams should have a variety of personality temperaments and include all four temperaments if possible. However, since Guardians make up about 40-45% of the population (Keirsey, 2007), it is often necessary to have extra Guardians on the team. For example, a typical five-member team might have two Guardian slots, one Artisan slot, one Idealist slot, and one Rational slot.

Occasionally, depending on the temperament makeup of the class, it might be necessary to break one of the temperament categories down into the temperament sub-categories and have a five-member team such as this: one Guardian slot – subcategory of Supervisor, one Guardian slot – subcategory of Provider, one Guardian slot – subcategory of Protector, one Artisan slot, and one Idealist OR Rational slot.

In any event, students can self-select their teams based on their temperament categories. An example of an online posting process for team sign-ups within a WebCT discussion board environment for an online distance learning class can be seen below in Figures 5 through 7.

From a teacher's perspective, one of the most rewarding parts of using temperaments as a means of building better teams for teamwork projects in business classes is watching the students "step up to the plate" and fully appreciate their roles on the team. That process can be observed in face-to-face classrooms as teams meet and work on projects and it can also be observed in discussion board activity within online distance learning classes. An example of a student with a Guardian temperament utilizing those Guardian characteristics is demonstrated in Figure 8.

Conclusion

There are several advantages to using a mix of student temperaments when building teams for class projects:

- The student knows why he/she is on the team.

- The student knows he/she has a role to fill on the team and that he/she is not just a dead spot on the team.

- The student knows there are no deadbeats on the team. Each team member has needed qualities to bring to the team "table."

- The student knows that his/her opinion is important and that it is okay to think differently and have different ideas than all of the other team members.

- The student knows that the team has the potential to be a strong team with a variety of personality temperaments represented.

Mixing student temperaments might be a way to build better teams for better learning. Students often have positive feedback when organized into teams with a mixture of temperaments. The discussions in Figure 9 reinforce this positive feeling of success.

FIGURE 5
WebCT COURSE DISCUSSION BOARDS CAN BE SET UP FOR TEAMWORK SIGN-UPS AND FOR TEAMWORK DISCUSSIONS THAT CAN BE MONITORED BY THE TEACHER.

FIGURE 6
DIRECTIONS FOR TEAM SIGN-UPS ON THE WEBCT COURSE DISCUSSION BOARD
UTILIZING PERSONALITY TEMPERAMENTS AS THE BASIS FOR SIGNING UP.

Subject: TEAM 2 - Case 2
Message no. 109
Author: Dr. Parris
Date: Monday, October 3, 2005 2:14pm
Team 2 - Case 2: The Harvard Cooperative Society, page 639 in <u>Business Re-</u>
<u>search Methods</u> textbook

Sign up for membership on this team. The 5-Member makeup of the team:

  1st member = Guardian (from the Keirsey Temperament results) in the Mon-
  day night class
  2nd member = Guardian in the distance online class
  3rd member = Artisan in the Monday night class
  4th member = Artisan in the online class
  5th member = either an Idealist or a Rational in either class

  —

Purpose of teams: to assist in completion of two assignments—#14 (research
study surveys) & #15 (team case studies)

Directions for signing up: On the class Discussion Board from the WebCT
homepage, sign up for one of eight teams composed of class members from both
the online class and the Monday night class by REPLYING under the team post-
ing. Put the team assignment information in the SUBJECT line of the posting
and restate it in the posting. Read about the eight teams' membership pro-
files and team purposes carefully before signing up for one. Each team will
have only five members and there are specific membership profiles to be filled
on each team. Slight changes might need to be made in the profiles as the
teams fill up. E-mail your teacher (jbparris) within WebCT if you can't find
"your place" on one of the eight teams.

FIGURE 7
EXAMPLES OF STUDENTS SIGNING UP FOR TEAMS ON A WEBCT COURSE DISCUSSION BOARD.

FIGURE 8
**EXAMPLE FROM A WEBCT COURSE DISCUSSION BOARD OF A STUDENT
TAKING HER ROLE ON THE TEAM AS A "GUARDIAN" TEMPERAMENT SERIOUSLY. THE SHADED AREAS TELL THE STORY!**

```
Message no. 185
Author: PHYLLIS
Date: Monday, October 17, 2005 7:54pm

Ben and I are in the Monday night class and Dr. Parris gave us time in class
to work on our case project.  We came up with the attached and invite your
comments and suggestions.  It is due November 7 - so I am taking on this
Guardian role (control) and asking that you read the attached and get your
comments back to me by November 1.  Once I make the final revisions, I will
send copies to everyone.  If any of the other Guardians want to take control
just let me know.
```

FIGURE 9
**EXAMPLE OF TEAM DIALOG ON A WEBCT COURSE DISCUSSION BOARD AT THE
COMPLETION OF A TEAM CASE STUDY PROJECT. THE SHADED AREAS ONCE AGAIN TELL THE STORY!**

Message no. 599
Author: MATTHEW
Date: Monday, November 7, 2005 2:41pm
```
Ok Team,

I have attached the final copy of the paper with the work cited page.  Van-
essa and I have looked over it one more time and I think the paper is ready
to be turned in.
```

**This was a great group to work with and I want to thank you for getting me
all the information to me on time. I had so much information that it made
putting the paper together very easy. So thanks again for being such a great
group to work with.**

Message no. 603
Author: AMANDA
Date: Monday, November 7, 2005 5:33pm
```
I agree Matt.
```
**I think we had a great group and I enjoyed working with all
of you.**

Message no. 610
Author: KERRY
Date: Monday, November 7, 2005 8:51pm
viva la group! it was my pleasure being on team 1. ```good luck with the pa-
per,```

Message no. 612
Author: VANESSA
Date: Tuesday, November 8, 2005 8:21am
**This has been a good group. I was wondering how it would go being on a team
in an online class, but it worked out great! Thanks everyone!**

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Academic Misconduct:
A Question of Accountability

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ABSTRACT

This paper presents the importance of accountability and a strong stand against unethical behavior. It includes the process of discovery, documentation, judicial process, and consequences of a case of academic misconduct and it addresses what administrators, faculty and staff can do to create a strong environment to deter unethical conduct in higher education. More importantly, it provides actual cases and insights into the necessity of coordination among all the constituents if they truly desire to put an end to academic misconduct.

This paper shares three actual cases of academic misconduct, the process of discovery, the appeal, and the outcomes of each case. Each of these cases was from institutions that have clearly printed statements of academic integrity or honesty policies. There were appeal processes in place at each institution but the outcomes of these cases vary due in part to whether there was strong support and effective coordination among the constituents at the particular institution. In the best case scenario, a proven case of academic dishonesty must be upheld and students who commit academic dishonesty be held accountable; however, in some instances, when any of the constituents fail to exercise due diligence, the desire to curtail academic dishonesty can be hindered.

Literature Review

Academic misconduct has plagued higher education for the last decade and continues to be a major problem with the advent of technological advancement. Numerous researchers have reported that an increasing number of students cheat at least once in their academic careers (Bushweller, 1999; Koch, 2000; and Olt, 2002). McCabe's findings indicate a tremendous rise of 200% in cheating compared to the early 1960s (Carroll, 2002). Recent research found a more critical ethical problem with cheating. According to researchers, students perceive that cheating is acceptable and the stigma of cheating is no longer as negative as it once was (Kleiner & Lord, 1999; Koch, 2000).

The prospect of a continuous deterioration in academic integrity is disturbing. Many researchers focused their effort on finding out why students cheat (Derryberry & Thoma, 2000; McCabe & Trevino, 1996, and Paldy, 1996), while others focused on preventive measures such as the honor code (McCabe & Pavela, 2000; and McCabe et al., 2001), and disciplinary proceedings (Karlesky & Stephenson, 1971). Although a good understanding of students' rationale for academic misconduct is insightful, it fails to provide clear guidelines on how to address the growing problem of academic dishonesty. While honor codes have been useful, the process of establishing an honor code in any institution is timely and costly, and it requires the commitment of all its constituents including administration, staff, faculty, and students.

There is very limited research available on one of the most critical factors that can curtail the ethical dilemma in academe, the faculty. Research conducted on faculty perspectives indicated that a majority of faculty respondents choose not to take any action against misconduct and only a very small percentage of faculty respondents would enforce institutional policy (Graham, Monday, O'Brien & Steffen, 1994; and Koch, 2000). Most of the studies concluded that faculty prefer to handle misconduct in their classrooms themselves without involving their administrations (Jendrek, 1989; McCabe, 1993;

and Lim & Coalter, 2006). An unsettling finding of recent research was the sentiment faculty respondents expressed about their lack of confidence in the judicial process of their institution (Koch, 2000, McCabe, 2005; and Coalter, Lim, & Wanorie, 2007).

Does It Pay To Cheat?

The consequences of academic misconduct for any proven case could include an "F" for the course, loss of tuition, a permanent record of academic dishonesty at the institution, and a possible permanent record on their transcript at some institutions. On the surface, any one of these consequences should be sufficient to deter students from even contemplating acts of dishonesty. Unfortunately, unethical conduct in academe has been continuously increasing as the stigma of cheating appears to have diminished.

It is detrimental to higher education and society at large when acts of misconduct are no longer perceived as dishonorable or shameful. Kleiner and Lord found that half of the 90% of students who admitted to cheating but were not caught, did not perceived cheating as unethical (1999). In a 1998 survey of Who's Who Among American High School Students, the findings indicated that 80% of our country's best students cheated on exams (McMurtry, 2001). Cases of academic misconduct continuously grew from 1968 to 1989 with incidents of cheating on tests increasing from 34% to 68%; plagiarism increased from 67% to 76%; and letting others copy work jumped from 58% to 98% (Schab, 1991). Furthermore, it was reported that 20% to 30% of students in higher education cheat on a regular basis (Koch, 2000).

The continued disregard of students for academic integrity is alarming and some researchers are investigating different measures to resolve the problem. Some of the measures to deter misconduct in academe include disciplinary proceedings (Karlesky & Stephenson, 1971), preventive deterrence methods (Roach, 2001), and honor codes (McCabe & Pavela, 2000; and McCabe et al., 2001). The efforts and work of numerous researchers to deter unethical behavior are admirable, but there does not appear to be significant improvement in integrity for the last few decades.

A Question of Accountability

The prevalent problem of academic misconduct raises questions of why students cheat and who should be held accountable. There is no doubt that the person who chooses to act dishonestly should be held primarily accountable; however, as faculty in higher education, we must ask ourselves what factors cause students of the 21st century to be more prone to unethical acts than students of 40 years ago, as confirmed by different studies (Bowers, 1964; and Thomas, 2001). Clearly, merely holding dishonest students accountable is not enough, but we must work to identify other possible causes of unethical conduct in higher education.

Academic integrity is critical to every institution of higher education determined to nurture future generations of leaders. Athanasou and Olasehinde (2002) pointed out that the validity of assessment relies on the principles of truthfulness and equity, without which, education is degraded and cheapened. Academic integrity is "the value of independent and honest scholarship in educational endeavors" (Zoll, 1996, p.7). The Center for Academic Integrity defines it as "a commitment even in the face of adversity, to five fundamental values: honesty, respect, trust, fairness, and responsibility" (1999, p.4). The task of reestablishing integrity in academia does not and should not rest solely on the shoulders of students. In the competitive knowledge–based society, education is not a luxury. Students must be properly trained and integrity is an integral component.

Institutional Accountability

McCabe (2005) has suggested that the rise of unethical conduct in higher education can be partially blamed on faculty's failure to establish a culture of integrity. Institutional policies are generally established to inform its constituents what the institution expects from them (Mccabe & Pavela, 2000; and Olt, 2002). Institutional policies should be written so that they are impartial to either party and that their only goal is to seek the truth; however, McCabe (1993) reported that a significant percentage (25%) of faculty were dissatisfied with the outcome of the judicial process in their institutions. In addition, Simon et al. (2003) found strong hesitation from faculty to implement institutional policies on unethical conduct because of their lack of confidence in the judicial process.

McCabe (1993) concluded time constraints, labor intensiveness, and emotional exhaustion as three of the major reasons why faculty hesitated to carry out institutional policies; furthermore, faculty generally perceived institutional policies as more protective of students who commit academic dishonesty than of the faculty bringing the charges. McCabe (1993) reported that faculty struggle with the notion that while they are doing the right thing in reporting unethical conduct, more often than not, they feel "punished" and "put on trial" to prove the validity of their charges. Wajda-Johnston et al.

(2001) concur with McCabe in their findings that even if a majority (57.2%) of the faculty respondents agree that they are troubled by the increase of unethical conduct, a lesser percentage of the same faculty respondents would actually file a charge.

Faculty are often frustrated by cumbersome institutional policies and a lack of support from administrators. In most cases of academic misconduct, institutional policies afford students with a well defined and proper channel of grievance. On the contrary, faculty usually feel that the process does not appear to be pro faculty because of the overwhelming time required to prove and document every single instance of dishonesty committed; furthermore, faculty are usually required to "stand trial" even when all the documentation clearly points to the student's guilt. To complicate matters further, there have been instances, where the faculty's status at an institution, gender, and classroom management skills were issues raised in appeal.

Faculty Accountability

Numerous researchers posit that it is a university professionals' responsibility to develop and nurture students (Murray, Gillese, Lennon, Mercer, and Robinson, 1996). The Statement of Ethics by the American Association of University Professors clearly mandates faculty with the duty to cultivate ethical academic conduct (AAUP, 1987), and the American College Personnel Association holds faculty responsible to teach their students about ethical accountability (ACPA, 2002, Section 2.9).

Literature shows that when faculty actively communicate and establish a foundation of trust with their students, students in turn are less likely to commit unethical actions (Chapman et al., 2004). Other research found faculty who are proactively promoting integrity in the classroom stand a better chance of deterring dishonesty (McCabe & Pavela, 2000; McMurtry, 2001; and Sims, 1993). It appears that when students perceived their faculty to be sincere and willing to stand firm against misconduct, students generally will think twice about committing acts of dishonesty (Jendrek, 1989; Wajda-Johnston et al., 2001; and Lim & Coalter, 2006).

It is apparent that faculty who take time to discuss the importance of integrity in their classrooms help to deter unethical behavior. Students generally reach out to their faculty for guidance when they are at a crossroad where everyone seems to discount the damage of dishonesty (Boyer, 1987; and McCabe, 2005). McCabe (2001) found that students actually want their faculty to set the ground rules and lead them to stay honest and to

act with integrity. McCabe concluded that a majority of the students desire to be truthful but did not want their honesty to work against their success.

To restore integrity in higher education, McCabe (2005) urges educators to teach students accountability, but more importantly, Boyer warns that "If high standards of conduct are expected of students, colleges must have impeccable integrity themselves" (Boyer, 1987). Every faculty must uphold the institutional policy consistently so that students would not be mislead or confused about what is required. When faculty deviate from institutional policy, they contribute to the problem of unethical behavior because it opens doors to different interpretations. When administrators refuse to support faculty on proven cases of ethical misconduct, it creates an atmosphere of distrust among faculty regarding the judicial process.

Cases of Academic Misconduct

The following sections show the impact of coordination among all the constituents to curtail dishonesty. The process of discovery, the charge, the appeal, and the outcome of each case are presented. Each of the cases presented in this paper was from an institution that has clearly printed statements of academic integrity or honesty. There were appeal processes in place at each institution but the outcome of these cases varies due in part to the effective coordination among the constituents at the institutions. In the best case scenario, a proven case of academic dishonesty must be upheld and students held accountable, but in some instances, when any of the constituents fail to exercise due diligence, the desire to curtail academic dishonesty can be hindered.

A Case of Failed Due Diligence

If all constituencies work together, academic misconduct can be addressed effectively but if there is a weak member, the results can increase academic dishonesty. The institution in this case is a small, religious affiliated, liberal arts college in the Midwest. The graduate program discussed had four faculty, one of which served as director. The case compares the tenures of two directors of the program and the impact each had on academic dishonesty in the program.

In the years that Director 1 was in charge, academic dishonesty was addressed, policies were followed and faculty felt they would be supported if they brought charges against students whether the charges were upheld or not. Director 1 organized an orientation for new students that included a section on academic dishonesty

and the institution's policies. An English professor discussed what constituted plagiarism, proper documentation and how to evaluate sources. Students left the orientation knowing the importance the graduate faculty placed on academic honesty.

Under Director 1, since the college was small and had limited support staff for helping to find evidence of academic dishonesty, the graduate faculty worked together to provide needed help and support. When a faculty suspected numerous cases of plagiarism in a class, the faculty would bring the papers to the Graduate Committee which consisted of the four graduate faculty including the director. The faculty would divide the papers and review them. The committee would then meet and discuss their findings. In cases where evidence of academic dishonesty was found, the committee would decide on consequences. Students were then called in individually to meet with the Graduate Committee. This process indicated to the students that the faculty was united in its stand against misconduct. Students soon realized that the program did not tolerate academic dishonesty and the number of cases fell sharply.

In one year, two of the four graduate faculty including the director left. Director 2 eliminated the orientation thereby forcing the faculty teaching the first course to cover the topic of academic dishonesty and the institution's policies. While not as effective as the orientation where all faculty participated, this approach worked reasonably well as long as the program had cohorts. In the cohort model, all students started in first of four modules at the same time. When the program eliminated the cohort model and allowed students to enter in any of the four modules, the topic of academic dishonesty and policies were covered on a hit or miss basis. Students could then make a case that they were not told what constituted academic dishonesty or what the institution's policies were. Despite numerous requests from faculty to address this problem, Director 2 did nothing.

In addition, Director 2 did not support faculty who brought charges of academic dishonesty. If students went to him to complain, he just told the students that there was nothing he could do. It was an issue that had to be resolved with the faculty. This approach led to frustration and anger on the part of faculty and students. It took much longer to resolve any dispute. Students soon realized that the faculty had no support from the director and some became very vocal and threatening if charges were brought. Faculty became frustrated and began to either try to deal with dishonesty themselves outside the policies, or stopped looking for academic

dishonesty all together. As a result, the potential for academic dishonesty increased.

As this case illustrates, it matters a great deal whether all constituencies work together to combat academic misconduct or not. There can be a major impact on the students' view and their willingness to engage in practices of academic dishonesty.

A Case of Failure to Follow Protocol

This case illustrates the importance of a strong academic integrity policy and the uniform application of that policy. It involves a tenured full professor at a medium-sized public university in the Midwest. The professor left the room briefly while proctoring a graduate final exam in a computer lab. Shortly after he returned to the room, the remaining students completed the exam and everyone departed. When the faculty subsequently scored the exams, it became apparent that two students had shared answers during his absence. Upon further investigation, the professor learned that while he was out of the room, one student, "Bob," had copied the exam onto a computer disk and passed it to another student. The faculty confronted the students, and both students admitted their actions. Contrary to university policy which required the faculty to fail students involved in academic dishonesty, the professor allowed Bob, the student who provided the disk to another student, to delay his grade and complete another course to fulfill the requirement of the degree program. Nonetheless, the faculty charged Bob with plagiarism and a permanent record was filed with Chief Academic Officer's office.

During the following semester, his last in the program, Bob submitted a paper to his professor which contained multiple incidents of blatant plagiarism. With the assistance of the library staff, the professor was able to provide irrefutable documentation of intentional plagiarism. Bob was charged with the second academic integrity violation which triggered automatic expulsion from the institution under the university's policy. The student appealed both charges of academic dishonesty in hopes to remain in the program and graduate.

The appeal went through several steps, each furnishing the student an opportunity to provide evidence and argue his case. In each step of the appeals process, the decision was upheld on both cases until Bob made his final appeal to the office of the Provost. The appeal for the case of plagiarism was quickly upheld due to an inordinate amount of documentation provided by the faculty and the library staff. On the contrary, the initial charge where the student "gave" his answer to a friend

came into question. Bob argued that the initial charge of academic dishonesty should be overturned because the faculty failed to follow university protocol. Bob argued that because the instructor did not follow the university's procedure, the occurrence should not have counted as an incident of academic dishonesty and hence, he should not face expulsion. After a thorough review and consultation with legal staff, the Provost overturned the initial charge and Bob was allowed to remain in the program from which he ultimately graduated.

Policies are an important part of any large organization. As noted by the acclaimed sociologist Max Weber, policies are part of the foundation of the day-to-day activities that allow large organizations to operate efficiently. Another element that Weber advocated was the impersonal application of the rules–for policies to work, they must be applied uniformly. This uniform application of rules is a basic element of our legal system and our basic understanding of fairness. If a policy is not being uniformly applied it is not a real policy and it serves no purpose except to confuse and alienate, and to make life more difficult not only for faculty, but for the students it applies to as well.

A Case of Following Proper Protocol

The following case demonstrates a powerful force that institutions of higher education could use to curtail academic dishonesty. The case took place in a medium-sized state university in the Midwest. It involves a junior faculty known for being intolerant of dishonesty in the classroom. The faculty included the university's academic honesty policy in the syllabus and discussed it extensively in classroom. The consequences of dishonesty were clearly communicated. The faculty also coordinated an integrity workshop at the beginning of each semester.

The case happened in a class were a 20-25 page research project was a requirement. The faculty also provided clear guidelines of what was expected in the research project. A student submitted her research a few days ahead and exceeded the page requirement by seven pages. Upon reading the paper, it became apparent that there were inconsistencies in the thoughts and language used in the paper. There was also a lack of parenthetical citations within the text and the citation page was woefully incoherent with references that did not appear to be correlated to the research topic. A simple search of the references showed inaccuracies and suspect citations. The student was afforded an opportunity to submit a complete citation page and provide necessary citations. Unfortunately, the revised paper remained

riddled with questionable citations. The faculty used the Google search engine to identify possible areas of plagiarism. She requested the assistance of the university's librarian to independently verify the originality of the research project. After a thorough investigation by the librarian, it was confirmed that there were more than 50 instances of blatant plagiarism. The faculty also requested the assistance of the department secretary to document all the areas of plagiarism identified.

Once the documentation was confirmed, the student was officially notified and given ten days to contest the charge through a formal grievance process. If a student chooses to appeal a charge, the appeal process usually starts at the departmental level appeal committee made up of at least three faculty other than the faculty filing the charge. If that appeal was denied, the student can appeal to the university level appeals committee made up of faculty from different academic areas of the university. If a student fails to appeal before the set time limitation, then the charge will be reported to the chief academic officer and permanently recorded in the student's file at the institution.

The student in this case was informed of the findings and the charge of academic dishonesty. She received an "F" for the course and a permanent record of academic dishonesty was filed with the chief academic officer. The student conceded to the faculty's findings and did not plan to appeal until she realized that her actions resulted in her ineligibility to work in certain positions on campus. However, when she realized the consequences, she had missed the ten day allowance to file an appeal. The student subsequently withdrew from the program and is pursuing a different degree program.

The case above illustrates a situation where all the constituents acted in the proper manner to combat academic misconduct. The faculty had the institution's policy in the syllabus as required and clearly addressed proper documentation requirements. The faculty did the research necessary to document instances of plagiarism and asked for and received independent verification from support staff. The institution's policy was well written and followed in addressing this situation.

Conclusion

The growing epidemic of unethical behavior in academia affects everyone. It is not just a matter of isolated incidents that will disappear anytime soon. In fact, as research has shown us, cases of academic dishonesty continuously increase with no solution in sight. The problem does not rest only with the students behaving

unethically, but rather, it rests with all the constituents of higher education. Administrators need to be more aware of the impact dishonesty has on both students and faculty. The judicial process of the institution should be fair for all concerned so that no one is treated with bias. For faculty, it is their duty to insist on integrity and firmly stand against unethical behavior. Faculty do not have the luxury to be selective on which case of academic dishonesty is worthy of charging. Every instance of misconduct should be charged and students should be taught that it is never right or justifiable to be unethical and dishonest.

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CURRICULUM REVISION CONSIDERATIONS:
THE VOICE OF EXPERIENCE

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ABSTRACT

Curriculum revision is one of the most daunting challenges facing faculty. The process is full of pitfalls and hurdles. However, these problems can be overcome. In the following discussion, the ten things that must be considered are listed and evaluated. Although many of the factors appear to be self-evident, programs often find them to be insurmountable hurdles. The paper discusses such potential problems as faculty involvement, planning activities, resources, and stakeholder considerations. By keeping these warnings in mind, a curriculum revision can be a rewarding and productive endeavor.

Introduction

A curriculum revision is one of the most daunting challenges facing faculty. The process is full of pitfalls and hurdles. However, these problems can be overcome. In the following discussion, the ten things that must be considered are listed and evaluated.

East Tennessee State University (ETSU) began a Master of Business Administration (MBA) program review in 2004. The existing program had been in effect since 1991, at which time it was considered a state-of-the-art program. However, in the intervening years, changes in the environment indicated changes in the program needed to be addressed.

The curriculum consisted of 13 courses (39 credit hours), many of which were team-taught by cross-functional faculty, and the program was a general business degree with no options to specialize. Also, competitive programs in the local area and on-line were infringing on the traditional market for ETSU's MBA program. Potential students were requesting a shorter program and a program with specializations. The faculty were no longer team-teaching the courses, so the cross-functional aspect of the curriculum was lost. As a result, a committee was appointed, by the Dean, to study the current MBA program and to determine if there were ways to address the problems.

As the committee worked through the three-year process of reviewing and revising the MBA program, a number of hurdles were encountered and overcome.

The following discussion includes a number of lessons the committee learned.

Number 1:
Involve faculty in the revision discussion.

The faculty of the program have valuable information about the program. For example, they know the type of students in the program and their learning abilities. Faculty also know the course content and, in many cases, know the weaknesses of the courses. Their input into the process of curriculum revision is very valuable, but many of them may be resistant to change – especially when they feel "their course" is threatened.

Leaving faculty out of the curriculum revision process invites resistance to the proposed changes. When the University of Wisconsin – Madison redesigned its MBA program, Dean Michael Knetter determined to allow the entire faculty to be involved in the process. He stated "Every dean will have a strong view of what should happen in a curriculum redesign. It's better, however, to provide the information and resources faculty need to make good decisions…." (Bisoux 2005)

The University of South Alabama College of Nursing addressed the problem of faculty resistance to change through the use of the Nominal Group Technique. A faculty retreat was held, and the participants were asked to identify the strengths and weaknesses of the current undergraduate nursing program. This approach led to faculty involvement

in the curriculum process and enthusiasm for the resulting program. (Davis, et. al. 1998)

ETSU invited faculty from all disciplines to be a part of the MBA Committee. Over the three years, membership of the committee changed as faculty left the university or resigned from the committee due to lack of interest. Those faculty members who remained on the committee were dedicated to creating the best possible MBA program the university could offer. The changes made to the program came from the faculty on the committee and from other faculty who provided input through e-mail and open faculty discussions held throughout the three years. As a result, the new MBA program is a product of the faculty – not the administration – and there was unanimous approval of the revision.

Number 2:
Consider why a change is necessary.

There are many reasons why a curriculum may need to be revised. Changes in resources, changes in the material covered, and changes in faculty are just a few of the causes of need to revise a curriculum. However, consideration must be given to changes other than curriculum changes that could fix problems within a program. The first steps taken by ETSU's MBA Committee was to determine why the program needed to change. Data collected by the committee indicated that constituents perceived some strengths and weaknesses in the program, and the committee then addressed the weaknesses identified, while retaining the indicated strengths.

As a result, a number of courses were retained, some were eliminated, and some new courses were added. In keeping with the idea that students need to build their skills from one course to another, the sequencing of the courses was planned so that material learned in one course could be applied in the following courses, i.e., statistics should be one of the first courses taken so that the material could be applied in the Operations and Technology Strategy course, the Marketing Strategy course, and the Culminating Experience course.

Number 3:
Have a plan.

When the decision has been made to consider curriculum revision, a plan must be formulated and the goals of the revision must be stated. The first step is to decide who is going to oversee the revision. When

ETSU decided to review its current Master of Business Administration program, the Associate Dean for Graduate Studies was designated the as person to supervise the review. Then a cross-functional, volunteer faculty committee was formed. The committee decided the first step was to gather information.

Surveys were designed and distributed to students, alumni, faculty, employers, and the college Board of Advisors. Also, a benchmarking study was conducted to determine how the ETUS MBA program stacked up relative to other MBA programs. The data from these sources established that a revision of the MBA program was necessary, so the committee commenced the revision process.

Once a determination to revise a program has been made, an agreement as to the goals of the revision must be determined. The ETSU committee decided to reduce the number of hours in the curriculum, include concentrations in the curriculum, eliminated team-taught courses, and update the content of the curriculum.

Number 4:
Consider stakeholders.

Stakeholders are an important source of information about the needs of a program. Students, alumni, faculty, and employers should be allowed to provide their insights into the needs of the program. Figure 1 illustrates the various stakeholders who provide inputs to a curriculum revision. When ETSU was considering a revision of the MBA program, surveys were conducted soliciting information from students, alumni, faculty, the Board of Advisors, and employers. The data from the survey indicated changes needed to be made in the length of the program, the availability of concentrations, and the content of the program. For example, the survey results of the alumni and faculty of ETSU indicated the Research Methods and Statistics course contained too much material on research methods and not enough material on statistics. The result of this weakness was the modification of the course; however, the entire curriculum did not need to be revised.

Other stakeholders also need to be considered. For example, the University of Arkansas at Fort Smith (UAFS) undertook a zero-based undergraduate curriculum revision that resulted in an innovative and creative approach. However, the proposed curriculum did not take into consideration the needs of the transfers from two-year feeder schools. As a result,

the proposed curriculum was modified to allow students to transfer most of their previous courses into the UAFS program. (Hale and Tanner 2006)

One of the weaknesses identified by employers, alumni, and students was the lack of a student's ability to specialize in a functional area. Therefore, concentrations were added to the program. Another weakness identified by the stakeholders was the length of the program. The consensus appeared to be that the program should be able to be completed in a maximum of four semesters. As a result, the committee determined that the maximum number of credit hours for the MBA program should be thirty-six. Other weaknesses discussed in the surveys were related to specific courses and the content of the courses. Those areas were addressed through the content revisions of the courses.

sociation of Schools and Colleges (SACS), and the Tennessee Board of Regents.

The AACSB Eligibility Procedures and Accreditation Standards for Business Accreditation states in Standard 18 that MBA programs should contain elements that provide students with the following: (1) Capacity to lead in organizational situations, (2) Capacity to apply knowledge in new and unfamiliar circumstances through a conceptual understanding of relevant disciplines, and (3) Capacity to adapt and innovate to solve problems, to cope with unforeseen events, and to manage in unpredictable environments. (AACSB 2007) This standard resulted in the design of an added course to the MBA curriculum entitled "Strategic Leadership."

The Commission on Colleges of the Southern Association of Colleges and Schools states in section

FIGURE 1
INPUTS REGARDING PROGRAM
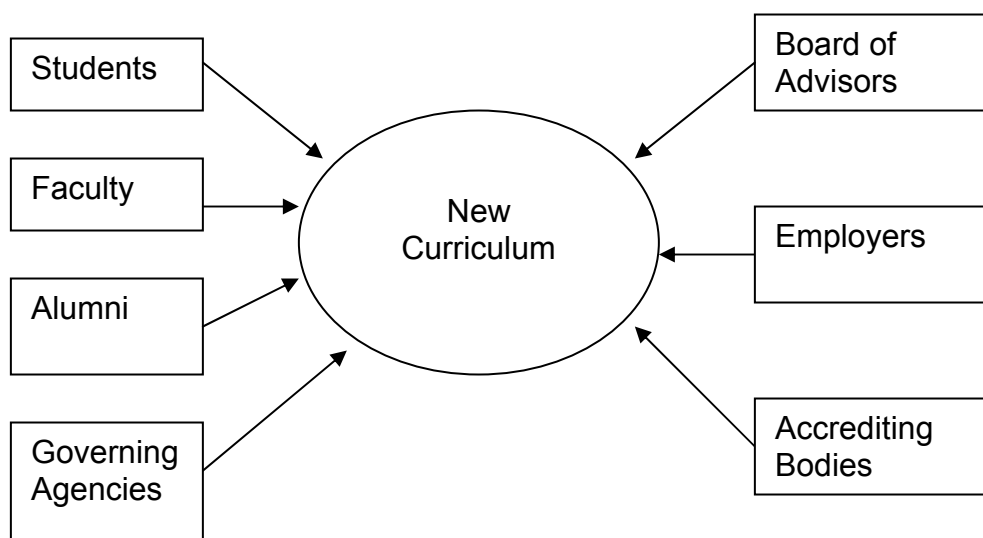
Number 5:
Consider accreditation agencies' and governmental requirements.

When revising a program, consideration must be given to the guidelines provided by accrediting agencies. For example, when revising the MBA program at ETSU, three agencies' criteria were considered: the Association to Advance Collegiate Schools of Business International (AACSB), the Southern As-

3.6.2 of Principles of Accreditation: Foundations for Quality Enhancement that "The institution structures its graduate curricula … to ensure ongoing student engagement in research and/or appropriate professional practice and training experiences." (COCSACS 2006) As a result, the current experiential learning course, "Strategic Experience," was retained in the revised curriculum.

The Tennessee Board of Regents is the state governmental agency to whom ETSU reports. TBR Policy 2:01:01:00 addresses the approval process for academic programs, and states that substantive revision of existing academic programs must be approved first by the institution, then by TBR, and then by the Tennessee Higher Education Commission. (TBR 2006) With these steps in mind, the committee delegated specific individuals to complete the necessary forms for the approvals.

It is interesting to note that the stakeholders providing inputs into a curriculum (see Figure 1) are not, with the exception of the faculty, involved in the curriculum approval process. Figure 2 illustrates the approval process for a curriculum revision.

Number 6:
Consider what other programs are doing.

Other programs have gone through a curriculum revision, so it is important to gather information about other similar programs. When ETSU was considering a revision in its Master of Business Administration (MBA) program, one of the first steps was to conduct a benchmarking study of peer programs, competitor programs, and aspirant programs. Information was collected as to the requirements for foundation courses, number of credit hours needed for completion of the program, course content of the program, and admission standards. The study highlighted the strengths and weakness of the ETSU program, and gave the committee a starting point for discussion.

Number 7:
Consider the resources available.

One of the weaknesses in the ETSU MBA program was the lack of resources to offer team-taught courses. Many of the courses in the existing MBA program were cross-functional courses that required two faculty members to effectively teach the content of the course. With the turnover in faculty and the lack of financial resources to fund two faculty members per course, these cross-functional courses were not longer feasible. On the other hand, one of the strengths of the program was the availability of other resources, i.e., technological resources and financial support for release time to develop new courses.

Number 8
Consider assurance of learning goals.

As the courses were developed in the MBA program, the committee concurrently addressed the assurance of learning goals for the program. Rubrics were written, and decisions were made as to the courses in which the rubrics should be used. Doing the curriculum revision and addressing the assurance of learning at the same time facilitated the direction of both processes. The AACSB International accreditation standard number 15 states, "The school uses well documented, systematic processes to develop, monitor, evaluate, and revise the substance and delivery of the curricula of degree programs, and toe assess the impact of curricula on learning." (AACSB 2007) Following this statement, the standard lists areas of knowledge and skills that business programs, undergraduate and graduate, should contain. The committee used these two pieces of information to create a comprehensive curriculum and imbed assurance of learning goals and measurement within the revised courses.

Number 9
Consider compromise.

Every member of the faculty will have his or her concept of the ideal program. Unfortunately, each of these concepts differs. In order for a curriculum revision to succeed, many compromises must be made. In limiting the number of courses required for an MBA degree, not all areas identified by the faculty can be included in the program. As a result, negotiation must occur. The original goal of the revised MBA was to have a project management focus. However, as the committee studied the competencies needed by MBA graduates, it became clear that the project management focus was not realistic. As a compromise, a concentration in Project Management was added to the curriculum.

Number 10
Remember it will change.

Bisoux (2005) stated, ". . . perhaps the most significant characteristic" of the new MBA programs is that they are in a constant state of revision. One of the factors considered in the revision of ETSU' MBA program was the ability to revise the program easily in future as the environment changes. Courses were given generic titles, i.e., Economics for Managers and Accounting Information for Decision Makers, so that the content of the courses could

be revised without having to undergo another curriculum revision.

By keeping these warnings in mind, a curriculum revision can be a rewarding and productive endeavor. A new curriculum can meet the needs of a program's graduates. The change in the curriculum can bring added enthusiasm to the faculty, and a new approach can address employers' needs.

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Fueling Creativity in a Business Classroom

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ABSTRACT

This article describes the management elective class entitled "The Power of Soul and Spirit in Business," which investigates ways to create a healthy environment in business through the development of community, creativity, and partnering. The class emphasizes collaborative leadership strategies in order to encourage employees to "bring their whole selves to work." The author highlights the role that active learning plays in this class and in developing creativity in the workplace.

Introduction

Imagine a business class where students initiate a sing-along as part of their formal presentation and all twenty enthusiastic class members stand to join in a chorus of "We Are the World." One class member subsequently observed how empowering the experience felt. In addition, a field trip to a neighborhood art festival is part of the class agenda; one student wrote later about the trip:

> *Being exposed to such a wide variety of art helped me remember how special it was to bring my own imagination to life. When speaking with the artists about their work I watched their faces light up with excitement and passion as they talked about their inspiration, their techniques, and the meaning of the piece to them. This reminded me of the joy of creating art and encouraged to me to overcome my resistance—to search within myself to reclaim my lost talents.*

What Is This Class All About?

"The Power of Soul and Spirit in Business," a management elective, is a class that explores how to create a healthy environment in business through the development of community, creativity, and partnering by using collaborative leadership strategies in order to encourage employees to "bring their whole selves to work."

> *What would it be like to work in an organization where authentic self-expression, autonomy, real community and creativity were alive and thriving? How would this feel? How would people be acting? What exciting things would be occurring? Are there actually workplaces like this? How could I find one?*

So read the flyer that circulated about the business school, inviting those who were interested to enroll. Students were encouraged to sign up for this management elective and explore strategies for creating a work environment that would invite people to tap into their creativity core and experience personal growth and development. Since its initial offering in 1999, 254 graduate and undergraduate students have enrolled in the class, and it has continued to evolve into something magical during the eight years it has been offered.

Syllabus Talk/The Basics of the Class

In the context of the class, "soul" is defined as having heart, and "spirit" refers to having passion and enthusiasm. As a consequence of participating in the class, students are expected to develop: (1) a greater understanding of "soul and spirit" in the context of the workplace and its current relevance to business; (2) knowledge of ways to inject soul and spirit into the workplace in general and their own environment in particular gained through study of thought leaders and business examples as well as class and personal exploration and experience; and (3) an analysis and evaluation of several aspects of soul and spirit in the workplace.

The course focuses on several themes. First, students look at the absence of soul in the current workplace and discuss why that seemed to be a reality. Secondly, the topic of "inner work" is explored by focusing on the primary values that students hold about themselves and their lives. This is followed by a discussion of methods for building community in the workplace and the various benefits that can occur within an organization when it is done skillfully. Students then discuss strategies that they use in their lives to cultivate creativity; this topic is also explored by looking at the organizations that do an effective job of nurturing this quality within their workforce.

Among other themes that are explored is one called "bringing your whole self to work." Class discussion centers on how organizations can create an atmosphere that encourages employees to do this as opposed to jettisoning part of their passion and heart at their employer's door. Class discussion also includes an examination of what it means to lead with soul.

Strategies for Learning

Active learning is a key strategy for the course. An active learning approach has been associated with the term "learning by doing" by many scholars; students are given the opportunity to take a more interactive approach to the subject matter of the course, encouraging them to generate rather than simply receive knowledge. It has been suggested that students who actively engage with the material are most likely to recall information later and be able to use that information in multiple contexts (Bonwell and Eison, 1991; Bruner, 1961). As Chickering and Gamson (1987) describe in their research, students must engage in such higher-order thinking tasks as analysis, synthesis, and evaluation in order to fully absorb the teaching taking place. In an active learning environment, teachers facilitate rather than dictate students' learning: playing the part of a mentor, the instructor has the opportunity to provide students with challenges, encourage risk taking, correct errors and present them with contextual information (Vygotsky, 2006), allowing students to undergo a more personal and meaningful learning experience.

But I'm Not Creative!
And You're Asking Me to Do What?

Active learning strategies are of paramount importance in this class. Because the subjects that are examined in the course are personal and integrative in nature, utilizing traditional learning styles such as lecturing does not have the impact that active learning does; in fact, traditional means often have a negative effect on students' willingness to consider and discuss heady topics such as the role of "soul and spirit" in everything they do.

Over the course of the class' eight-year lifespan, traditional learning styles have therefore been de-emphasized and replaced by more innovative methods. For example, one of the primary themes in this class revolves around the topic of "nurturing creativity" which is central to the effort of creating a healthy environment, whether it is at work or school. Early in the history of the course, a panel of artists was invited to talk with the class about their work and perspectives on creativity. The panel included graphic artists, painters, poets, and musicians,

among others. The intent was to find common ground in terms of creativity between the panel members and the class members. Although the panelists did a fine job of reminding students about the creative potential and capability in all of us, a gap developed between the panelists and the rest of the class, which was, of course, the opposite of the intended effect. This unintended consequence resulted in students feeling intimidated by the panelists. Of course, this was the opposite result of what had been planned for, so obviously changes in the course design regarding the topic of "creativity" needed to be made.

After that faltering start, more innovative approaches were used to help students reconnect with their creative capabilities. Phillips (1997, p. 159) writes, "Whenever the subject of creativity comes up, there's always someone who says, 'I'm not creative. I can't even draw stick figures,' as if creativity is all about drawing." In "The Power of Soul and Spirit in Business," rather than reminding students of what others think creativity is and adding to their self-consciousness about their perceived inadequacies, the subject is first broached by asking students to respond to two questions:

- How do you jumpstart your creative juices? and

- Name one thing you do at work or school that is creative.

Students report that they jumpstart their creative juices by doing a myriad of activities such as turning off the television and lighting special candles, playing the piano, sketching, making greeting cards, taking long walks to reflect, listening to classical music, and fishing and hiking in the mountains. Examples of what they do in their work/life that are creative include making collages and candles, writing poems, playing a mellophone in a brass/pep band, writing stories, building legos and bionicles with their offspring, and taking photos of natural surroundings. Introducing the topic of "creativity" with these questions usually assures that the conversation starts on a positive note as opposed to students apologizing for any perceived creative inadequacies.

Another approach to help students relax a bit with the topic of creativity is inviting them to bring music to class in order to set the mood at the beginning of the class. Levitin (2006) has written about our obsession with music and the power this medium has for us. Students share their own preferences for music voluntarily as a way of relaxing and moving into the heart of the evening. One exercise that has yielded extraordinary

results in term of helping students experience their creativity is watching the tango scene from the film, "Scent of a Woman," and then asking students to write about a time they were most creative. Comments range from discussing their drawing experiences in junior high to reminiscing about earlier dance or musical experiences. Another approach is to ask students to take an "art walk" around the campus and report back what they observed that was inspiring around the campus. Although the campus is an urban one, placed directly in the heart of the city, students are still able to find art galleries, tree-lined park blocks, stunning views of the local landscape from sky bridges, and fountains that populate the area to report about. It is a way to help students realize that their surroundings can yield breath-taking opportunities, much as Moore (1992) has discussed.

I Vote for Field Trips!

One event that serves to bond students in the class as well as remind them that everyone is creative is their participation in an art walk called "Last Thursday." This is a ten-year tradition in a particular part of the city and is designed to promote and publicize artists and businesses in the area. It is in a neighborhood that is currently undergoing gentrification, so that there is a general feeling that what is happening there is very much part of a broader transition. The artists are in residence and approachable so that students have a chance to talk with them one-on-one and bridge that invisible gap that they think resides between themselves and the "artists" that they consider more creative than themselves.

The evening begins with the class meeting at the primary art gallery on the street and then branching out from there to visit as many other shops, galleries, and photography studios as possible before reconvening at the local bistro to compare notes. For most business students, the opportunity to experience art in its myriad of forms is a first. Also, since this neighborhood is not adjacent to the university, it is the first time many of them have visited such a bohemian spot.

One student wrote after that experience, "...I realized I may not be able to draw or sculpt, but I can play the art of music. I have not played for many years, but I think if I am passionate enough about piano and determined enough to learn, playing piano will not be as difficult for me to re-learn." The student then continued by citing ideas from Zander and Zander (2000) about the challenge of not "holding back": "I cannot put a little or limited amount of my effort into re-learning piano but put my whole self into this action in order to gain positive and fulfilling results." This is but one example of

the way in which this class teaches students to look for new opportunities to include creativity in their everyday lives.

Another student described her experience of looking at a colorful collection of paintings this way:

> I just stood and looked at the collection because there were so many activities and detailed parts in the pictures and I was in awe of the craftsmanship. It reminded me of Maisel's (1995) idea in Fearless Creating when he talks about the activity of hushing when we sit in front of one painting for fifteen minutes and just look. That is exactly how it was for me. Time stood still and I just gazed in awe at the colors, the scenery, and tried to figure out what story the artist was trying to illustrate through the painting. I was so struck by it, I even forgot to get the artist's name. I will have to go back and look at it again very soon. And I even lost track of the other two people that I was with and had to look through the gallery to reconnect with them.

And, finally, another student described his experience of looking at a painting like this:

> I found the painting inspiring, refreshing, ready to get off the wall and run away. There was a personal connection: an emotional bridge between me and the painting itself. It was like we shared a secret. A secret no one else would know. Unintentionally, the painting was taking me closer to home, to my roots, to my family, to my mother.

And later this same student wrote, quoting Moore, "The soul of a piece of art is known intimately, not remotely. It is felt, not just understood" (Moore, 1992, p. 291).

Student evaluations of the evening indicate that without exception they enjoyed the opportunity to leave campus and explore a part of the city that was new to them.

Some thought that there needed to be more time to explore additional galleries but most agreed that that the evening afforded them an opportunity to experience art in new and special ways. As one student wrote:

> As this was my first time really soulfully looking at art, I will visit this area with

more comfort and confidence which will allow me to talk more with the artists and understand where the art came from.

The Artist Date

Cameron and Bryan (1992) have written about developing one's creativity through the vehicle of an artist date. This is intended to be a weekly opportunity to connect with one's inner creativity core and must be done alone. They describe the date as the "block of time, perhaps two hours weekly, especially set aside and committed to nurturing your creative consciousness, your inner artist" (p. 18). Students are encouraged to have an artist date during the course and to write about it in a creative brief. It is another method for using active learning to help students develop their creativity.

Although not every student elects to experience an artist date, many who do find them re-energizing. What do they do on their dates? Some have taken solitary trips to the beach, the woods, and to parks. Others enjoy the experience of going to flea markets, junk shops, and second hand stores. Spending time in bookstores and wandering idly through the stacks becomes a unique experience for some. One student wrote, "I go to the movies or to concerts or book readings and sit in the back in my imaginary cocoon, a part of life happening around me, but protected and safe."

Another student wrote:

> I think the biggest reason I seek out my artist dates with such passion is I really want to have that wonderful feeling of creative freedom all the time, in all aspects of my life. I want to figure out a way to safely birth my inner Artist into my current world and to make a permanent space for that part o f me. Steven Pressfield urges us to ask ourselves, "Are you a writer who doesn't write, a painter who doesn't paint, and entrepreneur who never starts a venture?" (Pressfield, p. 1). I feel that way during my regular daily activities, an affliction that is cured instantly by an artist date.

It should be noted that in addition to helping students connect with their own creativity, class discussion is also devoted to specific strategies a manager can use in order to create an atmosphere that will encourage employees to be creative. Discussing personal experiences and tactics act as a good transition into the dialogue regarding organization development and good management methods.

Our Thursday with Soul

Recently one class decided to host their own "Thursday" event after a particularly spirited discussion about the lack of viewable art in the business school. It should be noted that this was not part of the regularly scheduled class activities but was an event the students felt called upon to organize because of their own interest in the topic.

The class created a vision statement for the event that read, in part:

- Promote awareness and discussion of soulful issues and activities that are found or lacking in corporate America;

- Present artistic, cultural, and musical perspectives which are underrepresented in today's work environment;

- Promote acceptance, understanding and co-operation between people, cultures, and organizations;

- Foster new and experimental uses of soul inspiring techniques for creative expression in the workplace and

- Enrich those around us by bringing our "whole selves" to all that we do and not leaving our creativity at the front door.

The class displayed a variety of original creative works including photography, poetry, statues, drawings, paintings, pottery, stained glass, and even an Adirondack chair made by one class member. There was a video made by one student that included a kabuki performance as well as a live yoga/breathing/meditation demonstration. One student decided to share her soccer-playing gifts and provided a demonstration of soccer tips to those assembled. The event was held on the first floor of the business school that is surrounded by classrooms, and many students on their classroom breaks were able to view the exhibits. The demonstrations were presented in an adjoining classroom. People on the street who passed by the large windows that border the first floor were also invited to come in to see the displays. One student wrote,

Before the class I knew I had a passion for photography but I didn't know how to share it or if anyone else would even want to see my work. Now after getting such a great response from classmates and people at our "Our Thursday with Soul" celebration, I not only know people like my work but I actually have an 8' by 8' display for it. I also found another outlet: I am going to be a member of the Saturday/Sunday market as soon as the paperwork goes through and I will be selling my photographs every Sunday starting in a few weeks.

It should be noted that the "Saturday Market" to which the student refers is the largest outdoor arts and crafts market in continuous operation in the United States and attracts over 400 vendors who generate about $8 million in gross sales annually.

This is a perfect example of active learning at its best, and demonstrates students' proclivity for personalizing the learning experience. As Knox (1986, p. 35) explains, "The preference for active involvement reflects [students'] self images as independent people, [and] their natural inclination for informal learning." Many authors have written about the value and effect of involving adults in their learning experiences in an active fashion (Bonwell and Eisen, 1991; Kirschner, Sweller, and Clark, 2006; Sweller, 1988; Knox, 1986). Chickering and Gamson (1987) describe the importance of active learning well:

> Learning is not a spectator sport. Students do not learn much just sitting in classes listening to teachers, memorizing pre-packaged assignments and spitting out answers. They must talk about what they are learning, write about it, relate it to past experiences, and apply it to their daily lives. They must make what they learn part of themselves.

Authors have used an assortment of experience-based learning techniques in their classes, including role-playing, simulations, observational field trips, case study discussions, and interviewing subject matter experts. The success of these approaches depends on students' active involvement and self-direction. "The Power of Soul and Spirit in Business" attempts to integrate as many of these strategies as possible.

Next Steps

The class continues to evolve based on student input. Some plans for the future include:

1. Organizing reunions of graduates in order to grow this "Soul and Spirit" community. This will provide opportunities to obtain feedback about how to improve class design as well as surveying what kinds of healthy environments students are experiencing in the workplace and how they might create more Soul and Spirit.

2. Creating a website in order to facilitate communication among alums as well as provide up-to-date information about healthy workplace cultures.

3. Organizing the alumni in order to mentor current Soul and Spirit students and create an annual "Thursday with Soul" event within the Business School with the intent of making it a traditional yearly happening.

4. More information in the course about quantifiable measures of assessing the impact of soul and spirit within an organizational setting. This would provide additional assessment information in follow-up conversations with alums, thus providing additional information to include in further research efforts.

5. Integrating information about innovation within the course and relating that directly to the development of creativity.

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The Course of Strategy and Leadership Development in a Business Strategy Simulation

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ABSTRACT

This research explores two related but critical gaps in the strategic management literature. The first gap involves the setting of reference points. While the concept of reference points is ubiquitous in their use, there is little theory or research that attempts to explain how or why a particular reference point is chosen. This is a critical oversight, and it has important implications for strategic leadership and strategic decision making.

The second gap addresses a very fundamental problem: where do strategies come from? This would seem to be a very basic question to the study of organizations large or small. However, it is a question that has received very little attention.

This study tracks the emergence of strategies and reference points in a group of 101 senior undergraduate business students participating in a business strategy simulation. Participants completed an initial survey on decision making styles and preferences. Then, following each of ten decision making rounds, participants were again surveyed on their development of competitive reference points.

Results suggest various dimensions of reference points, as well as ways in which reference points develop to either support or undermine strategic decision making in groups. The results lead to suggestions for further research, and have implications for managerial practice.

Introduction

Researchers have long been aware of the influence of reference points on strategy (e.g. Chang & Thomas, 1989; Fiegenbaum & Thomas, 1988; Singh, 1986). Yet there remains little theory or research that attempts to explain how or why a particular reference point is chosen. This is a critical oversight, and it has important implications for strategic leadership and strategic decision making (Fiegenbaum, Hart, & Schendel, 1996).

Understanding strategic reference point selection may help us address a second very fundamental problem: where do strategies come from? This very basic question to the study of organizations has received very little attention. The gap in the literature is a reflection of the difficult nature of strategy itself. Strategy, on the one hand, comes to managers at least partly realized in the businesses and activities of the company, its history and structure and organizational habits. On the other hand, though, strategy is also a reflection of managers' ideas and theories about the world and their company's place in it. It is a creative result of analysis and testing and learning, much of which is influenced by the selection of strategic reference points. Some of these may be dynamic and reflective while others may be received and accepted. To address these two questions, this research investigates how critical reference point attributes and the individual differences of strategy makers contribute to strategic reference point selection and the ensuing strategy selection.

Literature Review

Research suggests that strategic choices are based, in part, on reference points chosen by strategy makers (Fiegenbaum & Thomas, 1988). Through the use of prospect theory (Kahneman & Tversky, 1979), it is thought that firms falling below their chosen reference point choose riskier strategies than those who are above their reference point. Strategic Reference Point Theory (Fiegenbaum et al., 1996) suggests that company performance can be improved through the proper selection and alignment of strategic internal and external reference points. This paper seeks to extend their propositions by focusing on how those reference points are

selected. Although they suggest that companies utilize numerous reference points, we shall concentrate on the selection of a single, broad reference point. The selection process however, can be applied to all levels and types of reference points.

Individuals use reference points as a comparison tool to help them learn about and evaluate unknown objects or events (Rosch, 1975). In strategy, companies evaluate their performance by comparing it with that of competitors which serve as reference points. Questions remain though as to which companies are selected as reference points and why they are chosen.

Research on reference points has established that something can only be used as a reference point if it is similar to the object of comparison (Goodman, 1974; Levine & Moreland, 1987; Tversky, 1977). Comparisons can only have meaning if the two items are perceived to be similar in some manner. There are a number of features which can create the appearance of similarity. Some research suggests that reference points must be categorically similar to be relevant (Goodman, 1974; Kahneman, 1992; Rosch, 1975). A number of potential categorical connections between companies could be made including industry, financial performance, strategy used, size, geographic location, etc. The more similar a company is perceived as being, the more likely it will be selected as a reference point (Goodman, 1974; Levine & Moreland, 1987; Rosch, 1975). The question remains however as to which features are considered most important for establishing similarity.

We propose that strategic reference point selection is, at least in part, a function of the individual differences of strategic planners (Kulik and Ambrose, 1992). Reference point selection is a cognitive process and is likely to be influenced by knowledge, experience, and personality (O'Neill and Mone, 2005). These may predispose individuals to pay attention to particular features of the potential reference points. Personality traits also lead to preferences for certain behaviors and decision makers may select reference points which reinforce the apparent correctness of those behaviors. Thus the reference point selection becomes justification for their preferred strategy. This suggests that reference point selection may be subject to a self-serving bias (c.f. Charness and Haruvy, 2000). While there are a wide variety of individual differences that could be explored this research will look at six: training or knowledge, risk preferences, tolerance for ambiguity, competitiveness, locus of control, and general self-efficacy.

Training/Knowledge

Individuals may be predisposed to give emphasis to areas where they have knowledge or training. For example, accountants tend to emphasize accounting results while marketing representatives may focus on companies using similar marketing strategies. Such emphasis is a result of the ability of the individual to understand the information and its saliency. In selecting strategic reference points, we expect that individuals with backgrounds in accounting, finance, and economics will concentrate on financial similarities while those with marketing and general management backgrounds will select reference points based on non-financial matters such as similar strategies.

Risk Preferences

Research has demonstrated that some individuals are more risk averse than others. While previous research in strategy has supposed that the reference point selection determines the risk level of ensuing strategies, we propose that the risk preferences of the strategists themselves may impact reference point selection. Consider an executive who is risk averse and whose company is performing slightly below the industry average and well below the industry leaders. Based on prospect theory, if the executive uses the industry leaders as their reference point, s/he would be required to adopt a riskier strategy than if s/he adopts the industry average as a reference point. Thus, to avoid risk, they use lower performing companies as reference points.

Tolerance for Ambiguity

Some individuals are more tolerant of uncertainty than others. Individuals with a low tolerance of ambiguity prefer stability and constancy. They generally oppose the uncertainty that comes with change. To avoid the need to make changes in their strategy, strategists with a low tolerance of ambiguity may select companies with similar or lower performance.

Competitiveness

Research has demonstrated that some individuals are more competitive than others. Competitive individuals enjoy competition and are driven to win. Doing well isn't good enough; competitive individuals want to be the best. This suggests that they will choose industry leaders as their reference point. If they are the industry leader they will focus on staying ahead of their closest competitor.

Self-efficacy and Locus of Control

Individuals with high self-efficacy are confident in themselves. They believe they can achieve whatever they desire. This often leads to higher goal setting. In selecting strategic reference points, they may be more willing to select industry leaders since they feel they can achieve the higher goals such companies represent.

Individuals with an internal locus of control tend to feel that their lives are driven by forces largely under their own control. Effort and talent (or the lack thereof) explains their circumstances, rather than forces external to them. In selecting reference points, internals may be more aggressive in goal-setting and may be more aggressive about achieving industry leadership.

Methods

Over the course of a semester, 101 senior undergraduate business students participated in a computerized business strategy simulation as part of their capstone Business Strategy classes. We used the Business Strategy Game (Thompson and Stappenbeck, 2006), a widely used simulation in undergraduate and graduate business programs. The students were organized into 29 teams or "companies" and four separate "industries." Within each industry, companies were in direct competition. The students act as the top management team for their company, setting and implementing business strategy. "Annual" decisions for their companies are submitted weekly, after which students receive extensive feedback about the performance of their companies.

At the beginning of the semester, students completed an eighty-item individual survey designed to collect information on their individual decision-making predispositions. All on a seven point Likert-type scale (1 = "strongly disagree" through 7 = "strongly agree") the items selected from existing published scales collected information on risk tolerance, tolerance for ambiguity, competitiveness, generalized self-efficacy, and locus of

control. In addition we collected information on each student's major program of study.

During the semester, immediately following each "annual" decision making cycle, each student completed an individual "management report." These reports were comprised of three closed-ended questions:

1. The competitor I am most concerned about is Company _____.

2. The performance of my company last year was (1 = "Poor" to 5 = "Excellent").

3. Next year, I think we need to make (1 = "No significant changes" to 4 = "Radical shift in strategy").

In addition, students were prompted to explain their answers to each of these three questions in an open-ended manner. Our goal with these three items was to understand the cognitive content of their reference point selection, how it impacted the evaluation of their own company performance, and the action-orientation that resulted from these judgments.

What follows is a selection of case studies based on the experiences of three of these teams. While not quantitatively systematic, a closer look at these groups suggests directions for further analysis and research.

Case Studies

Cougar

Team Cougar formed quickly at the beginning of the semester. As a group they shared a strong sense of self-efficacy and an internal locus, as well as a tolerance for ambiguity. Dani was somewhat the outlier in the group, Dan the peacemaker, and Alysha the driving force.

After their first decision, Cougar was in the lower third of the industry, but the team was not concerned. They

Team Cougar	Major	Self Efficacy	Competitiveness	Risk Propensity	Ambiguity Tolerance	Internal Locus	Conflict Avoidance
Alysha	Health Adm	6.7	5.3	5.4	5.4	6.6	3.8
Dan	Health Adm	6.0	6.2	4.2	5.4	6.4	4.8
Dani	Health Adm	5.4	4.8	3.0	4.8	5.0	2.8
Sara	Management	5.9	5.8	4.2	4.9	5.4	5.2
Group Means		6.0	5.5	4.2	5.1	5.9	4.1
Class Averages		5.5	5.2	4.1	4.0	5.2	4.1

all identified the industry leader as the competitor with which they were most concerned. With the following decision, Cougar dropped to the bottom of the industry and all but Sara saw the need for more drastic changes. All continued to identify the industry leader as their main competitive concern.

Decision three saw the company mired at the bottom of the industry and nearing bankruptcy. Dan and Alysha pressed for more major changes in direction and Dan started looking at companies with similar strategies, rather than just market leaders. The team also met with their instructor and decided on a radical shift in strategy that consolidated production facilities and moved up in product quality. However, decision four passed with no sign of a turnaround.

With decisions five and six, Cougar's performance improved dramatically and the team felt their strategy was beginning to show results. None, however, recognized that the industry itself had entered a period of severe under-capacity, and much of Cougar's success was due to demand that their competitors could not fill. Stung by earlier attempts to add production capacity, Cougar was now the smallest company in the industry and in a precarious competitive situation.

Cougar fell again, after decision seven, back to the bottom of the industry. But they had decided to expand capacity (two years too late according to Alysha) and to differentiate themselves from their chief rival by increasing model availability and boosting marketing expenditures. The decisions paid off. Decision eight saw Cougar rocket to third place in the industry, ahead of their long-time nemesis for the first time.

However, this would be Cougar's best year. The three remaining decisions saw Cougar settle back towards the bottom of the industry. Cougar did not build on its successes, and competitors were in a better position to match their moves.

Why did Cougar have such a difficult time finding and implementing a successful strategy? Two of its members were near the top of their class' GPA rankings. They put long hours into their decisions and largely worked well as a group, despite obvious frustration over Cougar's performance.

One possibility is that this was a problem of prior training. Simply by virtue of the major programs of study, the group did not have the exposure to more quantitative approaches to business decision making that many of their competitors enjoyed. While they did fairly quickly begin to use companies with similar strategies as reference points, Cougar struggled with what to make of that information. As a small company, their cost structure did not favor direct competition with industry giants, and yet the team never really appreciated that they were attempting the impossible.

Geronimo

Team Geronimo did not have a promising start. The three guys fell in with each other, more as a matter of last resort rather than preference. Chris remained on the periphery of the group throughout. Early complaints from Kasey (along with Brandon's and Chris' failing a readiness quiz prior to the start of the simulation) nearly led to the dissolution of the team. However, they promised they would pull themselves together.

While Kasey was painfully shy, both he and Brandon were highly competitive, bright, and numbers-savvy. Geronimo competes in the same industry as Cougar, also beginning on the high-quality end of the market, but they eventually developed a very different strategy.

After their first decision, Geronimo was in a near tie with Cougar and both identified the industry leader as the competitor of greatest concern. Geronimo would pretty consistently identify either the industry leader or the up-and-comer after any given decision as their main competitive focus, regardless of the strategy of that company.

Geronimo moved to first place in its industry by the third decision with a "boutique" strategy – very high

Team Geronimo	Major	Self Efficacy	Competitiveness	Risk Propensity	Ambiguity Tolerance	Internal Locus	Conflict Avoidance
Brandon	Accounting	6.3	6.0	4.0	3.9	4.6	3.2
Kasey	Accounting	4.8	6.5	3.8	3.5	5.0	3.8
Chris	Management	NA	NA	NA	NA	NA	NA
Group Means		5.6	6.3	3.9	3.7	4.8	3.5
Class Averages		5.5	5.2	4.1	4.0	5.2	4.1

quality but limited model selection to control production costs. The segment was small, but highly profitable. However, Geronimo made most of its revenues from private-label sales – a risky channel which is very price sensitive.

The risks became evident after decision four; large contracts were lost to competitors with lower bids and Geronimo dropped back to the middle of the industry. The team's management reports reflect their frustration and anger:

> *We can't afford another year like last year.*

> *We need to fix everything we ruined while figuring out how to forecast next year.*

Geronimo began to implement several cost-reduction initiatives, but rather than shy away from private-label they grew more aggressive and more analytical. They noticed when the industry was short of capacity that private-label was underserved and ready to be exploited. By decision six, Geronimo returned to the top of the industry rankings.

The company then embarked on a large capacity expansion in response – not to a direct competitor – but to a rapidly rising company building market share at the low-quality end of the market.

> *They have a lot of capacity and can potentially flood our industry!*

By decision eight Geronimo was locked in a first-place tie with this new upstart, which would remain a battle for the remaining three decisions. Geronimo continued to exploit its strategy – with investments in cost control, the company had the lowest cost of goods in the competitive private label markets. In addition, Geronimo noticed that exchange rate fluctuations were a good predictor of whether or not a private label market would be underserved. Over the final two decisions, their sales forecasts were perfectly accurate.

Geronimo's success was surprising, considering the difficult start. However, their scores on the competitiveness index were extremely high, and at least one member had a very strong sense of self-efficacy. Perhaps this led them to focus, even obsess, on being "number one" in their industry. Unlike Cougar, they also had the analytical skills and backgrounds that kept them focused on costs and sources of competitive advantage.

Decathlon

Decathlon is a conscientious group. Its members sit at the front of the class, directly in front of the instructor's podium. They talk freely, and intelligently. The group is easy-going, friendly, enjoyable. As a group they show some comfort with risk, but they are not a competitive bunch. Eric is Decathlon's numbers-guy. He enjoys the role and spends a lot of time crunching numbers and building forecasts. The group comes to rely on Eric's judgments.

The competition begins strongly for Decathlon; they are the only company to move down in price and quality and with that segment to themselves they begin in a strong second place in their industry. The group recognizes the need to consolidate its position as a cost-leader and begins to add capacity – some in one geographical region, some in another.

By the third decision, Decathlon is the largest company in the industry, and they are using their scale advantages to move up slightly in quality while maintaining the lowest prices of any competitor. They are firmly on top of their industry, and very confident.

> *These past 3 years we have significantly invested in capital, but shouldn't need to do as much in the next few years.*

> *We have been performing well throughout the competition, staying with the same strategy (cost-leader). Only very minor tweaks are needed.*

Team Decathlon	Major	Self Efficacy	Competi- tiveness	Risk Propensity	Ambiguity Tolerance	Internal Locus	Conflict Avoidance
Bill	Management	5.0	4.2	4.4	3.8	4.6	4.0
Emily	Management	5.5	2.5	4.4	4.3	5.4	3.6
Eric	Economics	5.4	4.7	5.8	5.1	3.2	3.2
Josh	Marketing	6.0	5.8	5.2	3.4	6.2	2.8
Group Means		5.5	4.3	5.0	4.1	4.9	3.4
Class Averages		5.5	5.2	4.1	4.0	5.2	4.1

Bill, apparently, pushes the group to consolidate its advantage and Decathlon expands with a fourth manufacturing plant in the remaining geographic region.

By the fifth decision, Decathlon has almost twice as much manufacturing capacity as its nearest rival but its lead over the industry is diminishing. At first, the team had no problem identifying the competitor of greatest concern – it was the other near rival for the top ranking. Now, however, there is no consensus at all. In addition, Decathlon is no longer growing its core market segment. Product quality levels have increased slightly, but model selection has dropped slightly to reduce costs, and some marketing efforts are being out shadowed by competitors. Eric insists that his analyses indicate there are no profitable returns to be had by expanding the Decathlon's core business - increases in either quality or model selection or marketing, he feels, all cost more than the company can expect to receive in increased sales. Instead, much of the company's production is now being directed towards the private label markets, which can be very price sensitive.

While Decathlon has the largest overall capacity, it is now spread out among four separate global facilities. Companies with larger facilities in low labor-cost regions now enjoy much lower production costs, and Decathlon is starting to feel the squeeze.

> *We are now starting to get squeezed out of the highly profitable wholesale markets and we need to make ourselves competitive again with these companies instead of being stuck-in-the-middle.*

By the sixth decision, Decathlon is in a nearly three-way tie for industry leadership. The strategy has not changed, but the company is no longer having its past success in the private label markets. Bill wants to add capacity and undercut competitors in private-label. Josh and Emily want to reduce their dependence on that market. Eric's analysis is prophetic:

> *We are starting to slip.*

The slip happens, gradually at first. By decision eight Decathlon has collapsed into fourth place, but well behind the industry leaders. The strategy is largely unchanged, although the company has reduced model availability again. There is still no consensus on which company is the chief competitive concern, although most focus on an industry leading company with similar quality levels but with a much wider model selection – the strategy Eric insisted was not viable.

In the remaining years, the slide deepens but consensus on a turnaround strategy eludes the team. Some want to move away from the private-label markets, others want to make that market the main focus. Some want to increase capacity to regain scale advantages, others want to reduce capacity. Decathlon ends the competition with the book value of its assets worth far more than the value of its shares on the stock market – a prime takeover candidate.

How did Decathlon sink so far and so quickly? They certainly took risks to gain their initial advantage, but once they achieved industry leadership they were very reluctant to make changes. Indeed, they seemed to become quite risk-averse. There were no changes that really seemed worth pursuing. Compared to Geronimo – which fought ferociously to remain on top of its industry – Decathlon ceded its leadership position, virtually without a fight. Competitive aggressiveness is frequently cited as a key factor in business success. The difference between Decathlon and Geronimo is striking in this regard.

Discussion

On the surface, it might appear that choosing, as a referent, a company whose performance is leading the industry leader rather than a close competitor would be optimal. Shouldn't all companies aspire to be like the industry leaders? Prospect theory suggests however that this may not be the case, at least when large discrepancies in financial performance exist within an industry. Prospect theory suggests that companies below their reference point may select riskier strategies that hold higher potential returns in an attempt to catch up to industry leaders. Such a decision could prove fatal if the risks are too great. For companies near the bottom of the industry, it might be wiser to select a company with slightly higher performance as a reference point to avoid the pressure of adopting overly risky strategies. Thus incremental performance improvements may be obtained on a more realistic time table.

These three did all seem to focus on the industry leaders, however. It's a bit confounded in Cougar's case since the industry leader was also pursuing the same general strategy. Geronimo did identify its future rival for industry leadership very early, while that team was still middle-ranked. That company was pursuing a very different strategy, however. Decathlon's internal consensus collapsed over its last four decisions. This is certainly an issue that deserves closer analysis.

Prospect theory certainly seems to fit Decathlon and their fear of growth, but seemingly not Geronimo. Perhaps self-efficacy and competitiveness negate risk aversion to some extent. Prospect theory is also applicable to Cougar as well; the company did take some chances when they were performing badly. Unfortunately they reverted to risk-aversion as soon as their rankings improved a bit. This is a question that has been looked at before, but not longitudinal studies following a set of firms over time.

Clearly, in addition to industry leaders, teams do compare themselves with industry averages in an evaluative sense. Their satisfaction with their yearly performance seems clearly linked to their ranking and a standing near or above the middle of the pack produces much more positive self-evaluations. So clearly this was used as a reference point, but seemingly distinct from their focus on a competitive threat. This also seemed more instrumental in driving their sense of how much change would be required in the following decisions.

Another conclusion one can draw is the influence of training and experience, the learned ability to search for important landmarks and navigate through the landscape. Cougar knew enough about the game to keep score - they knew who was earning points and who was in the same ballpark with them - but they didn't really know how to play the game. That is a fairly important prerequisite to success.

It is also striking how quickly strategies develop and how much inertia they have. One aim of this research is to discover the origins of strategic choices. At least for these three groups, the basic direction established with the first decision is basically the direction the company adhered to throughout, no matter whether it was working or not. There is a real resistance to substantial change, which the literature certainly supports. But even in small groups working with a simulated company, the power of sunk-costs and the escalation of commitment are overwhelming.

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The Parking Dilemma:
A Case Study of
A University Administrator's Scariest Nightmare

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Introduction

At the beginning of the Fall 2005 semester, Samford University's Vice President for Business Affairs and University Council, Bill Mathews looked anxiously at the campus map that lay across his desk. He knew how many employees the University had and how many students were attending the University, what he did not know was how all of these people were going to find a place to park when all internal studies and reports showed that there was a significant shortage of parking spaces.

As Mathews began to consider ways that the University could relieve its parking crunch, he realized that this problem did not arise overnight and that it could not be solved overnight either. Even with this realization, Bill knew that the University had to act to relieve the parking problem using both short term and long term solutions.

Samford's Parking Dilemma

Limited or inconvenient parking has traditionally been a serious problem on many college campuses. The parking situation on the campus of Samford University was no different. Samford University, founded in 1841, was a private university located in the suburbs of Birmingham, Alabama with approximately 4,500 undergraduate and graduate students. Most of the undergraduates were full-time students who lived on campus and attended classes during the day. Full-time graduate students in professional programs such as law, nursing, and pharmacy lived off campus and attended classes during the day. Other graduate programs in business and education were generally part-time in nature with students living off-campus and attending classes during the evening hours. *US News & World Report* ranked Samford fourth in the South in its 2006 edition of America's Best Colleges, Samford's 17th consecutive year in the top 10 in its category.

The Problem

At Samford, parking was not a problem for those arriving on campus before 8:00 am. However, open parking spaces quickly disappeared for faculty and staff arriving later. Faculty and staff decals issued represented 146% of the spaces designated exclusively for faculty and staff parking. Demand for parking on campus peaked daily from 9:00 to 11:00 am. As commuter students arrived, available parking spaces diminished rapidly. Commuter decals issued represented 149% of spaces designated as commuter parking. The lack of available parking spaces caused much consternation among the various constituent groups.

Faculty complained that students parked in their designated parking lots and the lack of proper enforcement resulted in faculty not being able to find parking. Faculty also complained that non-faculty administrators either did not understand or appreciate the various roles of faculty or were not sensitive to faculty needs. One perception among faculty was that administrators believed that if faculty would come to work by 8:00 am that finding a parking space would not be a problem. Faculty

teaching evening classes argued that they should not be expected to arrive before 8:00 am to park when they would not leave campus until 10:00 pm. Deans complained that meeting donors or constituents off-campus or other mid day engagements became frustrating and inefficient due lost time trying to find a parking space upon their return to campus. These frustrations may have incentivised employees to not leave campus when their particular role required their presence at external functions. Students complained that they were late for class after circling campus in search of that illusive parking space. Finding a parking spot on campus during peak times was a frustrating experience for everyone on the campus.

Complaints about parking arising from various constituents including students, faculty, and staff ultimately led to a motion by the Business Affairs and Faculty Welfare Committee of the Samford University Faculty Senate. The motion asked that a task force be formed to study various alternatives to alleviate the parking concerns. The motion appears in Exhibit 1.

Background

Faculty and staff had designated lots generally located nearest to academic buildings. Resident students were assigned to designated parking lots near their dorms. Commuter students would park in lots located in peripheral areas around academic and athletic facilities. A campus map with designated lots appears in Exhibit 2. Approximately 3,644 parking spaces were included in these lots. Students paid $20 per year to park on campus, whereas there was no charge for faculty and staff to park.

The administration conducted a study of the most feasible locations for both parking decks and surface parking lots. Mr. Don Mott, Vice President of Facilities estimated the cost of a single a parking space at $15,000 per space in a parking deck and $3,500 per space in a surface lot. He also noted that while surface lots were less expensive they usually took up more space and caused more severe environmental problems.

The Mott Fall 2004 Study

Mr. Don Mott, Vice President for Facilities and also a member of the University Parking Committee, undertook an extensive parking utilization study which examined parking patterns during the Fall 2004 academic term. This study identified 3,644 parking spaces on campus. Parking needs were estimated based on class-time enrollments throughout the day and week and are shown in Exhibit 3.

The Mott Fall 2004 parking study suggested that additional parking was needed. Mott stated that, "it is recommended that parking be added to alleviate shortages. An additional 350 - 400 spaces are needed to accommodate currently identified requirements. Planning for growth of undergraduates should include parking facilities beyond those proposed in this study."

The Parking Committee Report (March 2005)

President Thomas E. Corts acted upon the Faculty Senate Business Affairs and Faculty Welfare Committee's motion to study parking by appointing the University Parking Committee. The charge to the committee was to study the issues of parking on Samford's campus and to formulate recommendations for resolving those issues. This study was independent of the Mott Fall 2004 study.

The committee consisted of 11 individuals, including Mr. Bobby Breed, Director of Campus Safety; Mr. Bill Mathews, Vice President of Business Affairs; Mr. Don Mott, Vice President of Facilities; two other administrative staff personnel, 5 faculty members, and 2 students.

The committee met 12 times over the course of four months issuing a final report dated March 21, 2005 (Exhibit 4). According to the report's introduction, "every conceivable aspect of parking was studied, analyzed, compared, researched, and discussed. Solutions to parking problems, no matter how improbable, were discussed by committee members." The report contained ten different information items or facts and fifteen different recommendations.

The major information items were 1) a parking decal does not guarantee a space, 2) enforcement is a major problem, 3) the size and placement of spaces is dictated by city code and the fire marshal, and 4) public transportation is currently not an available option.

At times the committee expressed the frustration with the lack of a perceived problem as indicated by one of the reports' information items or facts. "The general mind set of many vehicle owners is that walking more than a few feet to their destination is not desirable or necessary. This is a mind set that must change."

The committee made 15 separate recommendations. Some of the recommendations related to campus safety

issues such as installing emergency telephones around campus and installing cameras to record vehicles entering and leaving campus. Among the most pertinent proposed parking solutions were:

1) **Implement a Vehicle Registration Fee**

    a) Require all faculty, staff and students to pay an annual $50 vehicle registration fee. Students must register vehicles by the third day of class and faculty and staff by September 15. Registration is limited to one vehicle per person. Once a vehicle is registered the driver will receive a hang tag or decal.

    b) Dedicate all vehicle registration fees to parking facilities, maintenance and parking enhancements.

2) **Secure an offsite parking facility.**

    a) This facility would serve overflow parking needs.

    b) Minimum capacity of 200 vehicles.

    c) Expand shuttle hours.

    d) Provide necessary security.

    e) Use the South Lakeshore Parking Lot (intramural fields' lot) as offsite parking until another facility is located.

3) Provide additional parking as soon as feasible including surface lots and parking decks.

4) **Revise class schedule**

    a) Schedule fewer classes at 9, 10, and 11 am and more at 7 am, 12, 1, 2 and 3 pm.

    b) Schedule some core curriculum classes and science labs in the evenings.

    c) Be conscious of peak parking times when scheduling special events.

The report indicated that other alternatives were considered but not recommended at this time. Some of these alternatives included not allowing freshman to bring a vehicle on campus, implementing a fee schedule based on proximity to campus core areas, and utilizing controlled access parking for faculty and staff.

Additionally the report revealed a sampling of parking policies for Samford peer institutions as well as other Universities and Colleges situated in Samford's geographic region. While the review of other parking policies did not reveal any noticeable patterns or significant commonalities, it did illustrate the varied and diverse ways in which other higher education administrators have addressed the problem of parking.

The Administration Acts

After receiving the report of the University Committee on Parking and reviewing the Mott Fall 2004 report, President Corts carefully studied both sets of findings and recommendations. In late October, it was time to take action. The President's decision was announced via a university news release (see Exhibit 5) on October 20, 2005. "A campus-wide committee, working with Provost (J. Bradley) Creed, recommended a fee policy that involves all," said Samford President Thomas E. Corts. "But, the study committee presented this recommendation with strong supporting documentation and asking that the revenue be dedicated to parking enhancements." Under the plan, faculty, staff, and students would all pay a required vehicle registration fee. Revenues collected would be dedicated to the maintenance of existing parking facilities and to the acquisition of additional parking facilities

The Problem Becomes More Complex.

A group of University faculty members balked at the administration's decision to charge a fee for parking. Their general displeasure led Dr. Jennings Marshall to submit an interoffice memorandum to Vice-President for Business Affairs, Bill Mathews (Exhibit 6).

The administration saw much of the validity of Dr. Marshall's arguments but did not know how to resolve the matter. The University President had already issued a statement through University Relations that the decision had been made and that parking fees would be included in the 2006-2007 budget. How could the administration back away from this stance? Should they go ahead with the decision despite the many objections that they had heard? Additionally, while the parking fee would lead to a consistent source of revenues for future parking space expansion, there still was the small matter of not having enough parking spaces for the number of campus users. Bill Mathews knew that he had a multi-layered problem on his hands, stating "It is one of the persistent ever present problems that has the least to do with the reason we are here." What he did not know, however, was what to do next.

EXHIBIT 1
COMMITTEE ON
BUSINESS AFFAIRS AND FACULTY WELFARE
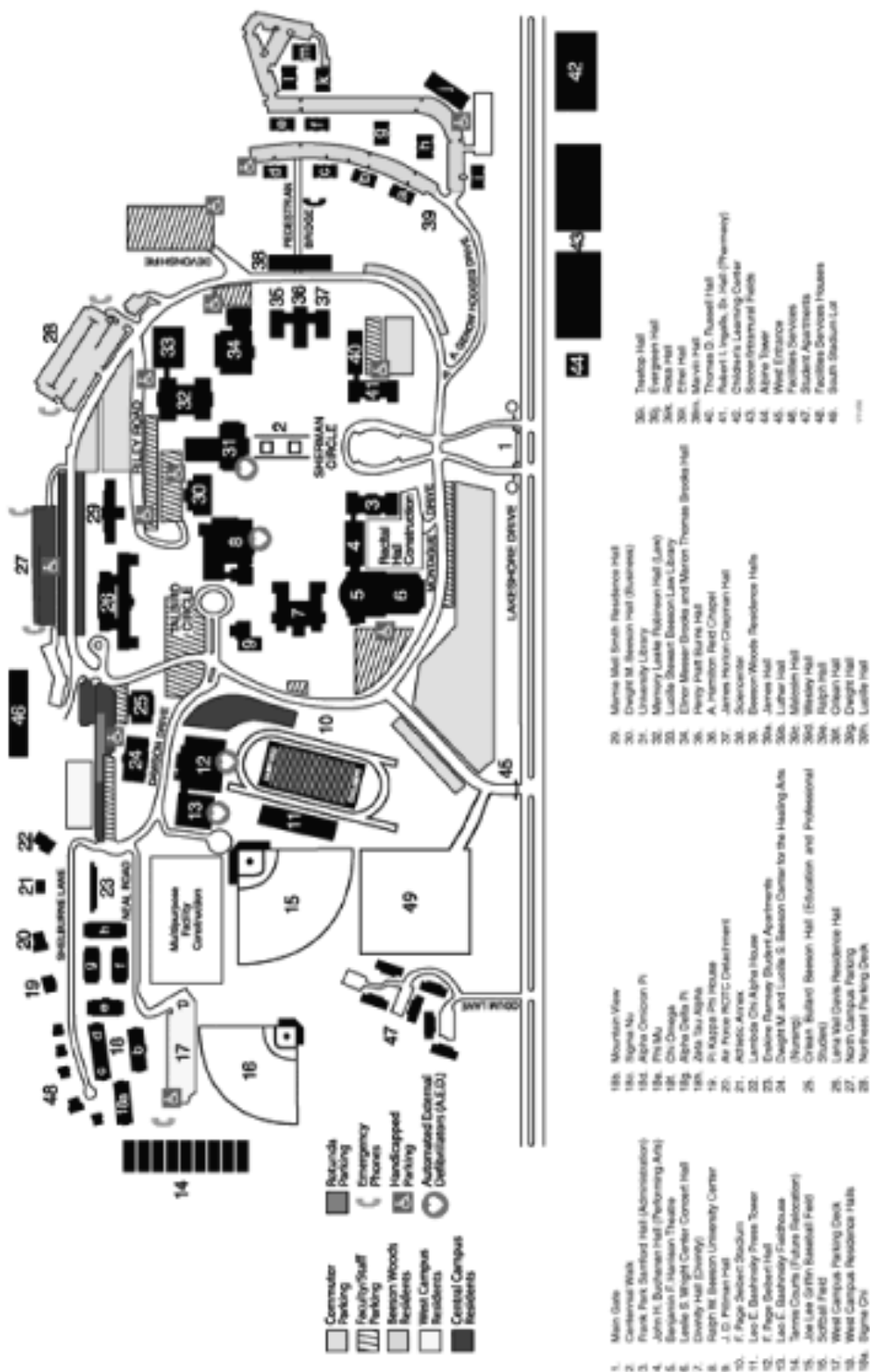**MOTION ON PARKING**
NOVEMBER, 2004

MOTION

The Business Affairs and Faculty Welfare Committee of the Samford University Faculty Senate moves for adoption of the following motion:

That the central administration of Samford University appoint an administration/faculty/staff task force before the December 3, 2004 meeting of the Faculty Senate charged with the responsibility of addressing, monitoring and ameliorating administrative, faculty and staff parking concerns, including the following:

a. Formal faculty and staff input into any central university planning process involving any aspect of on-campus parking (e.g., availability, fees, fines).

b. Implementation of freshman parking restrictions of various types to be determined by the above mentioned task force and effective at the beginning of the 2005-2006 academic year.

c. Provision of gated, designated parking for faculty and staff.

d. Implementation of a student, faculty and staff parking fee structure earmarked for funding expanded faculty, staff and student parking facilities.

e. Earmarking of revenue generated from parking fines for funding expanded faculty, staff and student parking facilities.

f. Full consideration by university administration of faculty and staff health, safety and security concerns relative to the current on-campus parking situation.

EXHIBIT 2
CAMPUS PARKING MAP

EXHIBIT 3
PARKING REQUIREMENTS ESTIMATE
THE MOTT STUDY

Day of Week	Hour of the Day								
	7:00	**8:00**	**9:00**	**10:00**	**11:00**	**12:00**	**1:00**	**2:00**	**3:00**
Mon	2,713	3,453	3,591	3,532	3,370	2,829	3,433	2,912	2,806
Tue	2,713	3,583	3,065	2,844	3,610	2,807	3,598	2,916	3,009
Wed (Peak)	2,723	3,450	3,622	3,664	3,330	2,890	3,503	2,894	2,826
Thu	2,703	3,575	3,067	2,832	3,535	2,862	3,490	2,891	3,005
Fri	2,694	3,367	3,450	3,520	3,152	2,737	3,259	2,712	2,718
Available	3,644	3,644	3,644	3,644	3,644	3,644	3,644	3,644	3,644
Full (90%)	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280
Recommend	4,071	4,071	4,071	4,071	4,071	4,071	4,071	4,071	4,071

SAMFORD UNIVERSITY PARKING REQUIREMENTS

EXHIBIT 4
SELECTED SECTIONS FROM
PARKING COMMITTEE REPORT
SAMFORD UNIVERSITY
MARCH 21, 2005

Parking Study Committee Report

The University Parking Committee was formed by President Corts at the request of the faculty to study the issues of parking on Samford's campus and to formulate recommendations for resolving those issues. Provost Brad Creed initiated the first meeting. The committee members are:

Marian Baur, Faculty, Ida V. Moffett School of Nursing
Bobby Breed, Administration or Staff, Director of Campus Safety
Susanna Burford, Student, Chief Justice
Matt Harrison, Student, President of the Senate
Bill Mathews, Administration, Vice President of Business Affairs and General Counsel
Jan Paine, Staff, Ida V. Moffett School of Nursing
Don Mott, Administration, Vice President for Facilities
Philip Poole, Staff, University Relations
Robin Snyder, Faculty, Art
Jean Thomason, Faculty, University Library, Chair
Deborah Young, Faculty, Law School

The committee met 12 times over the course of four months. Every conceivable aspect of parking was studied, analyzed, compared, researched, and discussed. Solutions to parking problems, no matter how improbable, were discussed by committee members. The following information summary and recommendations are a result of the committee's endeavors. It is our sincere hope that most if not all recommendations will be implemented.

Information

The parking committee discovered numerous facts that seem not to be universally known or understood by everyone on campus. Some of the facts are as follows:

1. The parking decal/hang tag (henceforth to be called Vehicle Registration) does not guarantee a person a parking place on campus. There simply are not enough parking places to guarantee everyone a space. Vehicle Registration serves to let campus safety know who is parking on campus. The committee recommends that Vehicle Registration Fees be earmarked to help defray the cost of providing more parking on campus. See Recommendation

2. Enforcement of improper parking is a major problem. The number of campus safety officers is insufficient to patrol the campus, write tickets, and handle their many other duties. More equipment and officers are needed. See Recommendation 1.

3. Students are restricted to parking in certain lots. For example, resident students cannot park in commuter lots and vice versa. Also, West Campus residents cannot park in Beeson Woods or on central campus and vice versa. Students are prohibited from parking in Faculty/Staff areas as well as Visitor spaces. So, students are restricted (for the most part) from driving across campus to go to breakfast, go to the gym, etc. The problem is an insufficient number of safety officers to enforce these restrictions. See Recommendation 1.

A study has been made by Don Mott for the administration comparing class times to available parking spaces with the possibility of changng class schedules to allow for better access to parking spaces. An additional study was made by Alan Hargrave tracking the number of individuals in classes at five minute intervals. See Recommendation 11.

4. The size and placement of individual parking spaces is dictated by city code and by the fire marshal. Many places on campus that appear to be large enough to hold another car are not legal parking spaces because Samford is prohibited from making them such.

5. The administration has an ongoing study of the most feasible locations for both parking decks and surface parking lots The cost of parking decks is very high ($15,000 per space in a parking deck and $3500 per space in a surface lot). Surface lots are less expensive but usually take up more space and cause more severe environmental problems.

6. The general mind set of many vehicle owners is that walking more than a few feet to their destination is not desirable or necessary. This is a mind set that must change.

7. Samford recently sold the land across Lakeshore that served as a 200 car remote parking area. Without this lot, parking issues will escalate. Samford administrators have searched for several years for another remote off campus location for parking but there is none within a 3 mile radius of campus.

8. Parking violators currently have the option of appealing their ticket to a traffic court that is composed entirely of students. Faculty, staff and students would all prefer that a second traffic court be formed for faculty/staff violators with those court members consisting only of faculty/staff. See appendix III for the committee's recommendation.

9. Public transportation does not appear to be an option at this point. The Regional Transit Authority has been contacted by Samford requesting that a bus route include Lakeshore with Samford as one of the stops. The Transit Authority does not currently see this as feasible and will not implement such a route.

Recommendations:

5) Create a Traffic Safety Division within Campus Safety

   a) Fund 160 hours per week for hiring graduate students or part time employees as campus safety officers for the Fall and Spring Semesters. Duties include patrolling the campus, writing tickets, directing traffic, and assisting faculty, staff and students to their vehicles.

   b) Implement a Campus Safety Bike Patrol.

   c) Implement a Golf Cart Service for faculty, staff and students on crutches.

   d) Fund an automated citation and permit management pack to include a T2 system and 3 hand-held devices. These devices would allow Campus Safety to have a hand held automated system that would not only computerize ticket writing but would give officers information immediately to determine if a car had already received other tickets.

6) Locate Campus Safety in the house next to the southwest gate entrance

   a) Direct visitors to Campus Safety for information.

   b) Move the University Information Center to this location.

   c) Locate signs in front of the house and on the campus to direct visitors to the Information Center.

   d) Issue temporary parking permits for visitorswhen appropriate.

   e) Allow an alternative option for regular visitors.

      i) Visitors may register their vehicles and receive a hang tag

      ii) Recommend a cost of $50 per year.

      iii) Parking is restricted to visitor spaces

      iv) The registration will expire in one academic year.

   f) Replace or renovate the house with a building designed for an information center and campus safety office when feasible.

7) Strictly enforce all traffic regulations and parking zones.

a) Write state citations for vehicles parked in handicapped spaces and fire lanes. Appeals of state citations are in the Homewood City Court.

b) Enforce student fines

   i) Maintain a record of traffic tickets in the Department of Campus Safety. Fines may be paid by mail or in person at the Bursar's office.

   ii) Unpaid tickets, after 30 days, will result in the ticket holder's vehicle being wheel locked. The ticket, plus a $30 wheel lock fee, must be paid before the wheel lock is removed.

   iii) All fines must be paid before a student will be permitted to register for the succeeding semester; the degree of a graduating senior will be withheld until all fines are paid; and transcripts will be withheld until all fines are paid.

   iv) Students receiving a fifth parking and/or traffic citation within one semester will be subject to their vehicle being wheel locked or impounded. Also, these persons will have their parking privileges restricted to the overflow parking lot or a designated area.

c) Enforce faculty and staff fines

   i) Maintain a record of traffic tickets in the Department of Campus Safety. Fines may be paid by mail or in person at the Bursar's office.

   ii) Unpaid tickets, after 30 days, will result in the ticket holder's vehicle being wheel locked. The ticket, plus a $30 wheel lock fee, must be paid before the wheel lock is removed.

   iii) An employee receiving a fifth parking and/or traffic citation within one semester will be subject to their vehicle being wheel locked or impounded. Also, these persons will have their parking privileges restricted to the overflow parking lot or a designated area.

d) Increase traffic ticket fines. See appendix I for proposed fines.

e) Control reserved parking spaces

   i) Orange cones used to reserve parking spaces are only placed by Campus Safety.

   ii) Requests should be made one week in advance.

iii) The words "Campus Safety" and a unique identifier code are prominently displayed on all authorized cones.

f) Require all faculty and staff to park in the area designated on their decal/hang tag during regular fall and spring semesters. If the designated area is full, the driver must park in commuter or overflow parking.

g) Require all students to park in the area designated on their decal/hang tag. If the designated area is full, the driver must park in overflow parking.

8) Implement a Vehicle Registration Fee

a) Require all faculty, staff and students to pay an annual $50 vehicle registration fee. Students must register vehicles by the third day of class and faculty and staff by September 15. Registration is limited to one vehicle per person. Once a vehicle is registered the driver will receive a hang tag or decal.

b) Dedicate all vehicle registration fees to parking facilities, maintenance and parking enhancements.

9) Traffic Appeals Court

a) Retain the current structure for the Student Traffic Appeals Council.

b) Create a Faculty and Staff Appeals Committee. See appendix III.

c) Shift the responsibility of responding to faculty and staff appeals from the Student Traffic Appeals Court to the Faculty and Staff Appeals Committee.

10) Increase Signage

a) Place additional signs on campus to direct persons to proper parking

b) Place signage at each parking lot indicating the legal parker, for example faculty/staff, commuter, etc.

c) Locate signs in front of the Campus Safety house, on the campus and on Lakeshore to direct visitors to the Information Center.

d) Mark buildings clearly.

e) Place signs under traffic lights on Lakeshore facing traffic both directions that indicate Samford entrances.

11) Add nine emergency blue phones on the campus.

See appendix II for list recommended locations.

12) Place cameras at both entrance gates so that all vehicles are photographed entering and exiting the campus.

13) Secure an offsite parking facility.

   a) This facility would serve overflow parking needs.

   b) Minimum capacity of 200 vehicles

   c) Expand shuttle hours.

   d) Provide necessary security.

   e) Use the South Lakeshore Parking Lot (intramural fields' lot) as offsite parking until another facility is located.

14) Provide additional parking as soon as feasible including surface lots and parking decks. See appendix IV for possible locations.

15) Revise class schedule

   a) Schedule fewer classes at 9, 10, and 11 am and more at 7 am, 12, 1, 2 and 3 pm.

   b) Schedule some core curriculum classes and science labs in the evenings.

   c) Be conscious of peak parking times when scheduling special events.

16) Develop a Campus Parking Information Web Page

   a) The ad hoc parking committee is responsible for the original content.

   b) Campus Safety is responsible for revisions to content.

   c) University Relations is responsible for the design.

   d) Information should include, but is not limited to:

      i) Campus map

   ii) Visitor parking guidelines and locations

      iii) Parking regulations

      iv) Parking appeal processes

      v) Parking guidelines for faculty, staff and students with health issues

      vi) Reward program

17) Implement an incentive program for faculty, staff and students who do not drive a car on campus See appendix IV for possible incentives.

18) Articulate and publicize parking guidelines for faculty, staff and students with health issues

   a) Individuals eligible for handicapped parking status should secure a permit from the State of Alabama and park accordingly.

   b) Individuals eligible for temporary handicapped parking status should secure a permit from the State of Alabama and park accordingly.

   c) Individuals who suffer from a sporadic illness should be familiar with instructions for assistance on the web site.

19) Encourage all campus coordinators of special events to inform the University Information Center of parking requirements so that Campus Safety and the shuttle service can minimize the effect of guests on normal parking conditions.

Ideas studied but
not recommended at this time

1) Do not allow freshmen to park cars on campus.

Feedback from students, faculty, and staff indicated that many feel the best answer to parking problems is to eliminate freshmen cars on campus. The committee investigated the policy of our peer institutions, surveyed current students and talked with the Dean of Admissions to gather information on the potential effects of a no cars for freshmen policy.

In researching policies of other universities, the committee learned that not allowing freshmen to park on campus is extremely rare. Also, Samford University Relations and Samford Admissions are concerned about the negative impact of not allowing students to bring cars their freshmen year. Eighty-eight percent of Samford students bring cars to campus. In the student survey conducted by the committee, 54% indicated they would not attend Samford if freshmen were not allowed to have cars on campus, while 43% said they would still choose this university.

The Committee, therefore, cannot recommend that freshmen cars be eliminated from campus. We do, however recommend that incentives be in place that would entice freshmen (and others) not to bring cars. See Appendix IV. The Committee members think that perhaps many of these students would not feel the necessity to have a car their sophomore, junior, and senior years if the mindset of having an enjoyable college experience without the necessity of a car is instituted early. Admissions would need an 18 month lead time for implementation of any significant change in parking policies for freshman.

The committee encourages the University to consider implementing the following suggestions to make no cars for freshmen more enticing:

a) Provide a secure remote parking lot for freshman cars and offer shuttle service to and from the campus.

b) Offer a shuttle service to and from the airport for freshman.

c) Provide freshmen the ability to rent a car at subsidized rates.

d) Provide freshmen a "loaner" car that is owned by the University - provided the borrower has adequate insurance coverage.

e) Offer a shuttle service to area shopping centers

f) Offer special discounts, activities and services for students without cars

See appendices V and VI.

2) Implement a parking fee schedule based on proximity to core area. For example, the core area would be $40 per month, non-core area $27 per month, and remote $11 per month. The committee did not think that this recommendation represented the spirit of Samford.

3) Retain a consulting firm to study and propose a parking plan for Samford

The committee determined that Samford has investigated this problem sufficiently. To retain a consulting firm at this stage in the process would be a duplication of effort and a poor use of resources.

4) Create small car spaces which would allow more total spaces.

The committee determined that the percentage of small cars is not sufficient to make this cost effective.

5) Implement controlled access parking for faculty and staff.

The committee thinks there are more effective and less expensive ways to improve parking for faculty and staff. Example: effective enforcement of current policies

6) Change parallel parking near law school to diagonal parking.

There is insufficient space.

7) Reschedule convocation to another time.

Two other university committees are currently studying this issue.

8) A reduced vehicle registration fee for employees and students who have Samford license tags.

APPENDIX VI
POLICIES OF PEER INSTITUTIONS

Institution	Freshman permitted to bring cars	Shuttle	Registration Fee			Cost of Parking Tickets		
			Student	Staff	Faculty	Student	Staff	Faculty
Abilene Christian	yes	assistance from officers	$30	$30	$30	1st -12 2nd -18 3rd - 30	1st -12 2nd -18 3rd - 30	1st -12 2nd -18 3rd - 30
Auburn	yes	yes-day and night	$30 to $50	$30 to $50	$30 to $50	$10 to $50	$10 to $50	$10 to $50
Baylor	yes	Trolley - daytime shuttle - evening	$175	$0	$0	$20 to $150	$20 to $150	$20 to $150
Birmingham Southern	yes	yes-day and night	$25	$0	$0	$25	$25	$25
Drake	yes	secure bus ride from 6 pm to 2 am	$75	$75	$75	$20	$20	$20
Furman	yes	yes	$80	$0	$0	$20	$20	$20
Loyola Marymount	yes	when needed	$0	$0	$0	$50 - 100	$50 - 100	$50 - 100
Mercer	yes	yes	$0	$0	$0	$25 + 10 each new ticket		
Millsaps	yes	visitors and emergencies		$0	$0			
Montevallo	yes	no	$20					
Rollins	no[1]	no	$60			$30 to $100		
University of Alabama Birmingham	yes	assistance from officers	$80 to $100 per semester	$11 to $40 per month		$10 to $100		
University of Alabama	yes	trolley system	$60 $120 reserved	$60 $130 reserved	$60 $130 reserved	$10 to $25	$10 to $25	$10 to $25
University of Georgia	yes	yes	$30	$20	$10	$10 average	$10 average	$10 average
University of Richmond	yes	yes	$90 fall $45 Spring			$25 to $40	$25 to $40	$25 to $40
Villanova	yes	Mon-Fri 8 am - 6 pm	$100	$100	$100	$15 to $50		
University of Tennessee Knoxville	yes	local transportation	$241per year	$23.50 per month	$23.50 per month	$12		
Vanderbilt	no	no	$192	$192	$192	$30 to $100		

[1] Exceptions: honors, local doctor visits, live off campus, job off campus

Exhibit 5
University News Release
October 20, 2005

Samford Administration Approves Vehicle Fee Recommendation

A new vehicle registration fee policy will be implemented at Samford University as part of the 2006-07 budget planning process, University officials have announced.

Expanded vehicle registration fee structures for students and employees were recommended by a University-wide study committee last spring and tentatively approved by University administrators in early October. Previously, only students were required to pay the fee. Under the plan, faculty, administration, staff and contract employees all will be required to pay the fee.

Revenue from vehicle registration will be dedicated to parking maintenance and enhancement, based on the committee's recommendation. Actual rates will be determined early in 2006 as part of the budget and fee planning process for the 2006-07 academic and fiscal year that begins June 1.

"A campus-wide committee, working with Provost (J. Bradley) Creed, recommended a fee policy that involves all," said Samford President Thomas E. Corts. "But, the study committee presented this recommendation with strong supporting documentation and asking that the revenue be dedicated to parking enhancements."

The fee structure was one of 15 recommendations presented by the 11-member committee, which included student, faculty and staff representatives. Jean Thoma-

son, director of the University Library, was committee chair.

The University already is acting on recommendations to build additional parking, Corts noted. A new lot south of Seibert Stadium should be completed by early November, and plans are being finalized for a new parking pavilion to be constructed next to the Leslie S. Wright Fine Arts Center. The new pavilion will serve special events and will be available during normal daytime hours as a "user-pay parking spot of last resort," Corts added.

The University's campus safety office already has begun efforts for stricter enforcement of traffic regulations and parking zones for students and employees, based on another committee recommendation.

Other recommendations are being reviewed for possible implementation by the University's facilities services division and student affairs division, which includes the campus safety office. University officials said factors such as space feasibility, staffing implications and financial costs would impact decisions on other recommendations.

In addition to the 15 recommendations made to University administration, the committee reported on eight additional suggestions that had come from students or employees but were not feasible or were being studied by other committees or offices on the campus.

Exhibit 6

Samford Business

Inter-Office Correspondence
Samford University
School of Business
Birmingham, Alabama 35229 USA
Tel   205 726-2547
Fax: 205 726-2464

TO: Bill Mathews, Vice President of Business
               Affairs
               Business Affairs Faculty Welfare Committee

FROM: Jennings B. Marshall

SUBJECT: Parking Fees

DATE: January 23, 2008

I am writing to articulate the reasons why charging faculty and staff for parking is a misuse of the University's resources. The provision of parking needs to be treated as a fringe benefit for University employees for the following reasons: 1) The only feasible way to get to work for the vast majority of Samford employees is to drive your own vehicle, 2) The only place to park if you are working at Samford University is on the campus, and 3) Virtually all employees drive to work.

Because driving and parking on the Samford campus is a necessity for employees, the provision of parking spaces should be viewed as a fringe benefit because to do otherwise simply transfers money to the government in the form of taxation and increases the University's obligation to the government in the form of payments for social security and workmen's compensation. I would assume part of the new proposal to charge faculty for parking would include payroll deduction for people to pay for parking. Assuming payroll deduction makes it even more obvious that all we are doing is transferring money from the salary budget to the maintenance budget with the government getting approximately 46% of every dollar.

Assume the following for illustration purposes:

Samford has 1,000 employees and they will pay $50 a year, to park. This means the new parking fees would generate $50,000 in revenue towards construction and/or maintenance of parking. Employees will have to pay with after-tax dollars which means that they will have to pay after 28% has been deducted for federal tax, 7% for social security, and approximately 3% for state taxes. The University will have to pay the 7% match on social security, approximately 1% for workmen's compensation. This means 46% more will be needed in order for the payments to be made to the University. Therefore, in order for the University to collect $50,000 for parking, the total expense will be $73,000. You are taking $73,000 out of payroll, giving the government $23,000 and getting back $50,000. Charging for parking accomplishes only one thing for the University and its employees. It takes $3 and turns it into $2.

The University and the faculty and staff would be better off if you would simply view the parking as a fringe benefit and reduce payroll by the amount that is deemed necessary for parking. Anything else is just a gross inefficiency with the only gain coming to the government.

cc: Fred Rogan, Human Resources Director

The Parking Dilemma:
A University Administrator's Scariest Nightmare

James P. Reburn, Jennings B. Marshall, & Charles M. Carson
Samford University

Instructor's Manual

ABSTRACT

During the 2005-2006 academic year Samford University's Vice President for Business Affairs, Bill Mathews, was faced with a dilemma that is common to almost all higher education campuses – parking. Mathews had to address concerns over a parking shortage on campus that was complicated by a new (and unpopular) University policy charging faculty and staff for parking.

Course Uses and Levels

This case is for use in undergraduate management principles or organizational behavior courses. It could be used with chapters on decision making or organizational change. This case was developed from an interview with Bill Mathews as well as publicly available documents obtained through Samford University's web site.

Learning Objectives of the Case

This case is designed to assist students in developing their critical thinking skills. Additionally, students should see the difficulty in satisfying multiple organizational stakeholders and constituents while simultaneously addressing the needs of the organization.

Discussion Questions and Answers

1. Review Exhibit 4. Which of these recommendations should have been given more attention by the Administration?

   This is a question that will hopefully get the students talking, discussing and thinking out loud. There is no right or wrong answer here, however require the students to justify their answer(s).

2. Exhibit 4 also contains an "Ideas Studied But Not Recommended" section. Which of these ideas deserved more attention?

Again, this question is designed to develop their abilities to think creatively and critically. Force them to choose several of these "Not Recommended" ideas and dissect how those ideas could have been implemented and why they might not have been chosen.

3. What could Bill Mathews have done to answer the concerns raised in Dr. Marshall's memo?

   Mathews could have taken several avenues to deal with Dr. Marshall's concerns:

   a. He could have used more evidence on what other colleges and universities were doing with their parking fees.

   b. He could have emphasized how the fees were going to be used to improve the parking situation.

   c. He could have used a change agent to help get Dr. Marshall and other like-minded University stakeholders "on-board" with the change.

4. If the students answered "use a change agent" (or if you have to answer if for them) then:

   What is a change agent?

   Change agents are individuals within the organization who are given the task of promoting and facilitating change. These individuals typically have a great deal of respect and or influence with organizational members. Organizations can use change agents to bring skeptics and doubters to a point of at least giving the proposed change a chance to succeed or be implemented.

Why might employees resist change?

As most OB texts point out fear (of unknown, of loss of power, of failure) plays a major role in resistance. Other influences also impact resistance such as change in responsibilities, and loss of expertise.

5. What unintended consequences could result from faculty and or staff being charged for parking?

Some (particularly faculty) may choose to come to campus less often resulting in fewer interactions with students and other colleagues, which could, in turn result in a disengaged faculty member. For lower paid staff the charge for parking would be a significant reduction in their pay, potentially causing them to look for employment elsewhere.

6. What should Bill Mathews do and how should he implement his solution?

Again, this is a question that has no right or wrong answer but will serve as a wrap up question. Force the students to plot out a course of action but be prepared to make them defend their decisions.

Epilogue

Samford University Administration removed the provision for charging parking fees to faculty and staff. In the Spring of 2006 a 320 space surface parking lot was completed adjacent to the football and baseball stadiums (see exhibit 2) at a cost of $1.8 million. Early in the Fall semester of 2006 the University announced plans to build a four-level parking pavilion / deck at an estimated cost of $10 million. Following an anticipated completion date of Fall 2007 for the parking deck, Samford will have added approximately 750 new parking spaces since Dr. Marshall's memo was sent in the Fall of 2006.

Comparing Effectiveness of Classroom & Web-Based Delivery Methods: A Quasi-Experimental Pilot Study

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ABSTRACT

This paper presents a pilot study that attempts to measure and compare the effectiveness of WBI and CI courses. A pilot study, grounded in the relevant literature, was conducted utilizing two Principles of Marketing classes: one, taught in a traditional classroom setting; the second, in a web-based setting. Student GPA was found to be an important indicator of success in the web-based course. Differences in instructional methods led to the finding that the classroom course was more effective than the web-based version. Implications for improving web-based course design and suggestions for future studies are made.

Universities are expanding their course offerings to include varying degrees of online course content in response to changing technologies and student demand. Students now have the option of obtaining entire degrees without ever stepping foot into a classroom. Brick and mortar universities have to complete with online universities to attract students to their programs. These brick and mortar universities are offering online delivery methods in lieu of traditional classroom settings in an attempt to be responsive to the marketplace. Traditional, blended, or online classrooms can now be found on most university campuses (Newman & Scurry, 2001).

A concern of the move toward web-based instruction (WBI) is in the effectiveness of this new media in providing a comparable experience to traditional classroom instruction (CI) (Sitzman, Kraiger, Stewart, & Wisher, in press). Several works in the academic literature point to the virtue of online delivery (e.g. Symonds, 2003; Sugrue & Rivera, 2005). Others highlight refinements to the online delivery method (e.g. Baily & Cotlar, 1994; Arbaugh, 2005), while still others present case studies that demonstrate how to develop online courses (e.g. Stradtlander, 1998; White, 1999). Several initial studies have been conducted to try to determine the effectiveness of web-based instruction as compared to classroom instruction (e.g. Schulman & Sims, 1999; Arbaugh, 2000; Allen, Bourhis, Burrell & Mabry, 2002). How-

ever, many questions remain in comparing the effectiveness of WBI to a comparable CI course (Sitzman et al, in press). Do techno savvy students perform better than their non-techno counterparts when in an online environment? Does prior experience with online courses affect the students' outcome in an online environment? All these questions are yet to be fully answered and are important to determining the comparability of classroom and web-based instruction.

As universities move toward more online offerings, it becomes important to assurance of learning criteria that students taking an online course receive an equal learning experience. Equal in that each student has the opportunity to master the content of the course as well as learn from the social interaction of the classroom, be it traditional or virtual. This paper presents a pilot study that seeks to measure and compare the effectiveness of WBI and CI courses. A pilot study grounded in the relevant literature was conducted utilizing two Principles of Marketing classes: one, taught in a traditional classroom setting; the second, totally web-based. The purpose of this pilot study was two fold: 1) to begin filling the gap in our understanding of the effectiveness of delivery methods as well as gaining a better understanding of influential predictors of online success; and 2) to offer insight into determining control measures to better design learning assurance measures for evaluating learn-

ing in traditional classroom instruction as well as web-based instruction. Are traditional and online classroom delivery methods equally effective? This is the guiding research question for a quasi-experimental pilot study of two undergraduate Principles of Marketing classes.

Theoretical Framework

The broad research question of the pilot study is "Are traditional and online classroom delivery methods equally effective?" To determine the answer to this broad question, a series of narrower focused questions must first be answered. These narrow questions work to isolate alternative factors influencing the effectiveness of the delivery method. Following the guidance of Sitzmann et al (in press), we ask these additional research questions: 1) what participant factors contribute to the ultimate effectiveness of an instructional delivery method? 2) Do differences and similarities of instructional methods impact overall effectiveness? 3) Does the degree of practice influence overall course effectiveness? These secondary questions provide the controls necessary to isolate factors in answering the foundation research question.

Participant Factors

Participant factors such as age, computer experience, and motivations are just a few of the individual factors that have been explored in prior comparisons of WBI and CI (Sitzman et al, in press). The Sitzman et al (in press) meta-analysis found that older students (23-45) learned more from WBI than from CI. Conversely, younger students (18-22) learn more from CI than from WBI. The works of Graham (1991) and Knowles (1984) explore the influence of age, maturity, and motivation on student learning and may offer insight into the why behind Sitzman et al's (in press) findings. Based on prior studies, we make the following hypothesis:

> *H1a: Older students will do better than younger students on WBI.*

In today's higher education, computer skills are necessary for classroom success; this is especially true in WBI where 100% of the course is conducted via the computer. Given the nature of WBI it is expected that computer skills will play a key part in student success (Crow, Cheek and Hartman, 2003; Jones and Kelley 2003). Likewise, familiarity of having previously taken an online course will reduce the learning curve and aid in students' success.

> *H1b: Students with higher levels of computer skills will be more successful at WBI than students with lower levels of computer skills.*

> *H1c: Students who have previously taken online courses will be more successful at WBI than students who have never taken an online course.*

WBI is a more independent form of study and as such, it is expected that students that are self-starters and that possess good study habits will be more successful in a WBI environment than students that lack these skills. One indicator of this is information garnered from the students' self-report and a second is the students' prior GPA.

> *H1d: Students who are self-starters and possess good study habits will be more successful at WBI than students with lower levels of these skills.*

> *H1e: Students with higher GPA's will be more successful at WBI than students with lower GPA's.*

One advantage of WBI is its flexibility. Students are better able to juggle busy schedules and fit their course work in during odd times. However, this benefit may also work to hinder the busy students' performance. Busy students may end up not devoting adequate time needed for success in a WBI environment given the independent learning component of the course.

> *H1f: Students who work fewer hours will be more successful at WBI than students that work more hours.*

> *H1g: Students who take fewer college credit hours will be more successful at WBI than students taking a greater number of hours.*

Instructional Methods

Differences and similarities in instructional methods utilized in WBI and CI have the potential to influence the performance outcomes of participants. Clark (1983; 1994) makes the argument that no study of different delivery media, as in the case of WBI and CI, can assess the effects of the delivery media without controlling for differences in instructional method. In this study the WBI and CI sections of the course, while having some similarities, differ on many key points. This difference offers the opportunity to not only evaluate the impact of delivery media, but additionally, offers insight into the effectiveness of alternative instructional methods.

Sitzmann et al's (in press) meta-analysis found that when different instructional methods were used to deliver the two sections, WBI was more effective than CI. This difference is due to the novelty effect of the alternative instructional method. Conversely, when like instructional methods were utilized for both sections, no significant differences were found. This leads us to make the following hypothesis:

H2a: *The differences in instructional methods between WBI and CI will lead to higher learning effectiveness in WBI.*

Practice is another instructional method that has been shown to impact learning (Sitzmann et al, in press). Practice is essential for skill acquisition and feedback is needed for students to know whether they are effectively using their newly acquired knowledge and skills (Brown & Ford, 2002). To further account for the influence of delivery media on learning, this study controls for practice. The WBI version of the course requires students to take chapter quizzes and prepare internet exercises, while the CI version relies on four unit exams. This isolation allows us to determine the impact of these activities on student outcomes:

H2b: *Students in the WBI course will be more successful than CI students due to greater opportunity to practice the course concepts.*

Overall Delivery Media Effectiveness

Finally, research has shown that when factors like those described above are controlled for in distance learning, comparisons indicating that there is "no significant difference" that can be attributed to the delivery media (Clark, 1983; 1994). In other words, student and instructional factors are the reasons for any differences in effectiveness, not the delivery media itself:

H3: *There is no difference between the effectiveness of CI and WBI.*

Methods

Design

The pilot study follows a quasi-experimental design (Cook & Campell, 1979) by comparing two fall 2006 undergraduate Principles of Marketing courses. One course was in a traditional classroom setting and the second was the web-based version of the course. Both classes were taught by the same professor. Participants self-selected into the two course sections based on their

individual motivations for class registration. Informed consent was obtained from each participant and the opportunity to be excluded from the study given. The pilot study consisted of a total of 45 participants with 32 derived from the online course and 13 from the traditional classroom course.

In this study, the quasi-experimental design is superior to a true experimental design because it does not randomly assign students into one of the two course sections. To randomly assign students into a course would be detrimental to students for three distinct reasons: 1) Forcing students into a WBI section would be invasive and potentially detrimental to certain students who may not possess the skills required to successfully complete a web-based course; 2) Randomly selecting students into the separate sections does not replicate the actual process of course selection potentially biasing the results of the study; and 3) The results of prior studies have found WBI to be less effective than classroom instruction when true experimental designs are utilized (Sitzmann et al, in press; Newlin, Lavooy and Wang, 2005).

Data Collection

Data was collected during the course of the fall 2006 semester from a number of sources: 1) Students completed an initial survey at the onset of the course; 2) Student records were accessed for data on overall GPA; and 3) The course grade book was accessed to the determine student outcomes.

At the beginning of the semester, students were asked to complete a questionnaire designed to gather demographic information, as well as information pertaining to computer skills and previous experience with online courses. Demographic information included gender, race/ethnic identification, age, and city of residence (to better understand the distance of the students to the university). To fully understand the circumstances of the students registered in the two courses, information was gathered on semester course load, employment workload per week, and declared major. Information on the preparedness of students in terms of computer skills was collected. Students were asked about their computer use habits in terms of frequently used services and in terms of home and work connectivity. Lastly, students were asked to answer a series of questions about their approach to course work and study skills.

Variables

Several participant variables were derived directly from the initial student questionnaire. These variables in-

clude age, previous online experience, outside employment work load, and course load taken during the fall 2006 semester. Computer skill assessment is a calculated variable based on self-reported data about computer usage and proficiency level on nine computer tasks. A student's study skills score is a variable calculated from eleven self-reported study habits. The variable of GPA for each participating student was drawn from student records and the outcome dependent variable used in the study is the student's final grade as reported in the course grade book. The level of student practice was calculated based on the number of quizzes, exercises, and exams students attempted as determined by the course grade book.

Similarities in Instructional Methods

Both classes were based on the same text book, the same order of chapters, and the same projects required. The courses both provided an expanded introduction to the basic marketing functions (The "Marketing Mix"/"The Four P's of Marketing") and were accompanied by an introduction to other marketing variables including consumer behavior, B2B marketing, marketing ethics/ social responsibility, international marketing, online marketing, marketing information, marketing strategy, and target marketing. The courses had two objectives: 1) to develop an understanding of the fundamental concepts involved in marketing and 2) to develop skills in analyzing and utilizing marketing strategies. A strong emphasis was placed on the textbook when designing both sections and students were required to read and master textbook content.

Differences in Instructional Methods

The CI section was taught largely using the traditional lecture method with brief chapter outlines in which students recorded each lecture's details. This methodology allowed for greater standardization and consistency related to lecture content and also required student engagement during class. The semester was divided into four units, each lasting from three to four weeks followed by a traditional exam. After each exam, a major project was also required.

The WBI course was taught largely using a guided independent study method. Students signed onto the course Web site to receive directions requiring them to read textbook chapters and then complete various quizzes, internet exercises and course projects. The semester was also divided into four units, each lasting from three to four weeks but followed by a quiz and internet exercise for each chapter covered. After each unit, a major proj-

ect was also required. No unit exams were given in the WBI course.

Personal interaction with CI students occurred frequently during, before and after class. In addition, a number of CI students visited the professor in his office. Interaction with WBI students was largely student initiated when asking questions through the course message board or through the professors' email. Therefore, interaction with the WBI students was less personal and less immediate.

The primary issue when comparing CI and WBI courses is the obvious difference which requires the WBI students to take more responsibility for their learning. Therefore, as to this point, the professor feels that he did not really teach the WBI course but rather, the students taught themselves and learned while he just evaluated their learning. In this respect, the WBI course requires less teaching and more clerical, grading, and evaluating of tasks. For CI courses, the traditional lecture methodology allowed the professor to place emphasis on certain points and topics. He was able to make the material come alive with examples from his experiences or research accomplishments.

Data Analysis

Data was analyzed quantitatively utilizing multiple regression techniques, which are the appropriate statistical procedure given the nature of the data collected and the research questions guiding the study. Multiple regression analysis allows for the isolation of variables to determine the contribution of individual predictors on the outcome variable (Allison, 1999). This ability enabled us to draw conclusions about the predictors utilized in the study. A series of regression equations were constructed to isolate the impacts of participant factors, instructional methods, and practice on learning outcomes. The data file was split to determine the impact of the predictor variables on outcomes for the WBI sample. A t-test was performed to verify the "no significant difference" hypothesis; the results of which were confirmed by a multiple regression.

Results

Description of the Sample

The sample size for this pilot test is 45 representing 13 CI students and 32 WBI students out of a potential population of 86 students for an overall participation rate of 52.3%. CI students participated at a rate of 46.4% and WBI students participated at a rate of 55.2%. Students

ranged in age from 20 to 45 years of age with a mean of 26.24 years. Participants were predominately female accounting for 66.7% of the respondents. GPA's ranged from a low of 2.39 to a high of 3.93 with a mean GPA of 3.01. The respondents crossed business majors, with 33.3% declaring management and 20% declaring accounting as their majors. Participants worked from 0 to 60 hours per week during the semester with a mean work week of 26.78 hours and were enrolled for 3 to 21 credit hours with a mean course load of 12.98 hours. Final grades earned by study participants ranged from 66 to 99 with a mean of 89.18.

Hypotheses Testing

The first group of hypotheses, H1a through H1g, were tested utilizing OLS regression for WBI participants only, as the assumptions of the hypotheses were geared toward WBI not CI. The participant factors were regressed on the participants' final grade for the course, the results of which are presented in Table 1 (Equation 1. The overall participant factor equation yielded an R^2 of .468 which is significant at the p<.05 level.

Hypothesis H1a was based on prior research that found that older students, ages 23-45, perform better than younger students in a WBI environment (Sitzmann et

al (in press). This assertion was not supported in the pilot study as the standardized beta of -0.163 failed to reach significance. Hypotheses H1b and H1c assert that familiarity with technology through computer proficiency and prior WBI will lead to better WBI performance. These two hypotheses were not supported as the standardized beta failed to reach significance (β = .097 and -.032 respectively). Hypotheses H1d and H1e are grounded in the assumption that students that are self-starters and have good study skills will perform better than students lacking these skills in a WBI setting. Hypothesis H1d, the average study skills derived from the student questionnaire was not supported (β = 0.087). However, hypothesis H1e which accounts for GPA does have a significant impact on the students final grade (β = 0.572; p<.05) and is the leading indicator of WBI success in this pilot study. The final two participant factor hypotheses H1f and H1g predicted a negative impact of work hours and credit hours attempted on success in a WBI. Although in the right direction, both of these hypotheses failed to be supported (β = -0.277 and -0.236 respectively).

Hypotheses H2a and H2b, the hypotheses that examine the effectiveness of instructional methods, were tested using OLS regression on the entire sample population. A two-step approach was taken in order to isolate

TABLE 1 REGRESSION ANALYSIS				
Equation	1	2	3	4
	WBI			
Variable	β	β	β	β
Computer Proficiency	0.097	0.194	0.089	0.183
Previous WBI Course	-0.032	-0.07	-0.039	-0.060
Ave Study Skills	0.087	0.193	0.209	0.208
GPA	0.572*	0.555***	0.470***	0.564***
Work Hours	-0.277	-0.268	-0.167	-0.264
Credit Hours	-0.236	-0.167	-0.013	-0.161
Categorized Age	-0.163	-0.006	-0.006	0.007
WBI Course			-3.111***	-0.047
Practice			3.085***	
R sq	0.468	0.438	0.591	0.440
Adjusted R sq	0.313	0.332	0.486	0.315
Change in R sq			.153**	
F	3.017*	4.125**	5.622***	3.535**
df	7	7	9	8
*p<.05. **p<.01 ***p<.001				

the impact of instructional method by interpreting the change in R^2. Participant factors were regressed on final grade in the first equation as a control set. A dummy variable for online instruction and a ratio variable representing the number of practice attempts were added in a second equation. The results of these regressions are presented in Table 1 (Equations 2 and 3).

Equation 2 is the control model that includes all the participant factors included in the prior test for impact on the WBI student outcomes. However, in the Equation 2 regression, the entire sample is utilized: WBI and CI participants. The regression yielded an R^2 of .438 (F = 4.124; p<.01). Similar to the model in Equation 1 which included only WBI participants, the only variable to reach significance is student GPA (β = 0.555; p<.001).

The next model (Equation 3) adds the dummy variable to compare the effectiveness of the WBI and CI courses. It also includes the variable that represents practice opportunities. This regression yielded a R^2 of .591 (F = 5.622; p<.001). Adding these two variables created a significant change in R^2 of .153 (p< .001) indicating that instructional method does make a difference. Student GPA from the control variables remained significant (β = 0.470; p<.001). Hypothesis H2a, ground in prior research, predicted that differences in instructional methods would lead to the WBI course being more effective than the CI course. A significant difference between the effectiveness of WBI and CI was found (β = -3.111; p<.001); however the difference was not in the anticipated direction. The WBI course was significantly less effective than the CI course. H2a was not supported. Hypothesis H2b also examined the impact of instructional method on effectiveness and predicted that WBI students having more practice opportunities would outperform their CI counterparts. While increases in the number of practice opportunities did yield significance (β = 3.085; p<.001) suggesting overall that more practice aids student outcomes. When taken in conjunction with the results from H2a (CI is more effective), a greater number of practice opportunities in this pilot study did not result in WBI being more effective than CI. Hypothesis H2b is not supported. This counterintuitive finding is further explored in the discussion section.

Hypothesis 3 was tested utilizing a basic t-test to compare means for the final grades of the students in CI and WBI courses. The t-test for non equal variances yielded a t-statistic of -.260 (df =22.522) which is not significant. An additional OLS regression (Equation 4) that included participant factors and the dummy online variable but did not include the practice variable was run to corroborate the findings of the t-test. The regression yielded an R^2 of .440 (F = 3.535; p<.01). The dummy variable for WBI was not significant (β = -0.047) corroborating the results of the t-test that there is no significant difference related to delivery method of WBI and CI. H3 is supported.

Discussion

The findings of our pilot study suggest that a student's GPA is an important predictor of success in a WBI course. One possible explanation for this finding is that students who have consistently done better over their college career, as evidenced by a higher GPA, are likely to have acquired good study habits and are able to work independently. The WBI course in the pilot study is designed around an independent study model on which the ability to work independently becomes a necessity for success. Students with higher GPA's have proven their ability to be successful in their coursework, where students with lower GPA's may not possess the skills necessary to work independently. Given the design of the course, students with lower GPA's should refrain from taking this type of WBI course, opting instead for a more traditional course that is more structured and has more professor interaction.

No other participant factors were deemed significant in the pilot study. The rationale for including the items in the study was based on the existing research, making them viable items to test. The lack of significant findings in this pilot study does not in anyway suggest that there is not merit to the claims. A small sample size (n=32 for WBI) heavily contributes to the lack of statistical significance found. These items should continue to be addressed in future studies.

The most important finding of the pilot study is the insight that it provides in the comparison of instructional methods. The study showed that the instructional method utilized in the WBI course was significantly less effective when compared to the method used for the CI course. This difference directly measured in the pilot study is the level of practice the students attempted during the semester. In the CI course students had the opportunity to practice four times, while in the WBI course 34 opportunities were presented. The findings show that students' outcomes increase when more practice is attempted, controlling for course format. As CI is the reference group, the increase pertains to the WBI students.

In interpreting these findings, it is important to consider the nature of the practices available in each setting. The practice in the WBI course consisted of individual chapter quizzes and internet exercises. These activities were unsupervised and at the students' discretion. It was possible for a student to sit at the computer with their text book and answer the questions. There was also no way to control for multiple classmates who chose to do the work together. The four practices for the CI course were traditional closed book unit exams proctored by the professor. It was necessary for students to review and prepare for the exams ahead of time. The findings suggest that proctored exams incorporated into an instructional design are better than relying on independent quizzes and activities. Perhaps a model that incorporates both exams and other practice opportunities would be a better approach.

The final finding of the pilot study was as anticipated; there is "no significant difference" attributable to delivery media. This was borne out through both a t-test and a regression model. As previously asserted by Clark (1983; 1994) and more recently by a Clarke and colleagues' (Clarke, Flaherty & Mottner, 2001) study of WBI and CI marketing courses, differences are not attributable to the media, but rather participant factors and instructional methods are the drivers of differences. If a course is adequately designed, the media by which it is disseminated is irrelevant. This pilot study, although humble in its scope, concurs with previous thought.

Although the CI and WBI classes shared the same learning goals, the classes did not require the same types of assessments to measure those goals. In addition, the weights of the reinforcement assessments were not the same. The WBI course included quizzes and end-of-chapter internet exercises for a total of 48% of the grade while the CI class included only four unit exams for 64% of the grade.

Designing the WBI class to provide not only a wide variety of learning techniques (such as video and audio lectures, notes and handouts supplementing the textbook), but also allow for socialization within instructional activities. Activities could include discussion boards and live broadcasts which provide humanization of the WBI class and may duplicate social interactions in the CI section. This modification could lead to an increase in WBI participants' higher performance. Particular attention should be paid to ensuring that weights when evaluating learning outcomes are comparable in both sections.

Limitations and Future Research

This study sought to fill the gap in our understanding of the effectiveness of delivery methods as well as gain a better understanding of influential predictors of CI and WBI success. Some limitations were found when the broad research question "Are traditional (CI) and online (WBI) classroom delivery methods equally effective?" was investigated.

The first limitation was that the study was conducted at only one university, with only one class taught by one professor. Although this proved to be an appropriate approach to develop the methodology for future research, it did not, as expected, render generalizable results.

Another limitation is that the difference in course design prevented a one-to-one comparison of both classes. Future studies should ensure that the courses being evaluated have defined common learning goals for each course as well as developed common methods of assessing those goals. The assessments should be the same for both types of courses, understanding that the administration of the assessments might vary based on delivery. One means to assess learning across sections would be to develop standard questions that address key concepts which are then graded by a common rubric.

To gain a better understanding of the students, an initial survey was completed at the onset of the course. Because completion of the survey for this study was voluntary, the response rate was only 52.3%. For future studies, completion of the initial survey may include an incentive to complete. If incentives are deemed necessary to increase participation, consistent incentives should be offered across all courses being studied to eliminate any bias.

A lack of student interaction in the WBI course is another limitation of this study. The WBI course did not make use of available technologies such as the discussion board or Horizon Wimba to increase the opportunities for interaction among the students in the course. Caine and Caine (1997) discussed that students' knowledge is enhanced by communicating, interacting and discussing with other students in the same class whether it be a WBI or a CI course. Future studies should provide a variety of opportunities for students to interact in the WBI courses just as they might in the CI courses. Once opportunities are provided, researchers can begin to document the impact of these interactions. Interactions may include but are not limited to frequency of emails, posting to the discussion boards, office visits, Some suggestions might be to quantify and/or rank the

types and quality of the interactions in both the WBI and CI courses in an effort to measure the impact of the interactions on student grades.

Learner control was not addressed in this study but is recommended to be investigated in future studies. Learner control refers to the extent to which trainees (students) have control over their learning experiences by affecting the content, sequence, or pace of material (Friend & Cole, 1990). Research shows the effect of learner control on actual learning to be negligible (Kraiger & Jerden, in press; Niemiec, Sikorski, & Walbert, 1996). However, WBI allows for much more learner control than does CI. This substantial learner control in WBI has been shown to impact learning (Sitzmann et al, in press) leading us to believe that this is worthy of further investigation.

Another related area worthy of investigation is the impact that learning styles may have on student performance. The survey completed by the students at the onset of this study asked a series of questions designed to identify their approach to course work and study skills. Questions were used to determine the readiness of students for the independent nature of WBI courses. However, in addition to gathering this information, data should also be gathered on students' learning styles. Free instruments to assess learning styles are readily available on the internet; however, David A. Kolb's Learning Style Inventory is recommended because of its longstanding reputation as an accurate measure of learning styles (Loo, 2002). The benefits of using such an instrument are twofold: to educate students on their own learning styles and to determine the impact learning styles have on successful performance in WBI and CI courses.

A final recommendation would be to include multiple sections of the same course across multiple semesters to provide a larger sample over time. By incorporating these suggestions into future research, the results will not only be more generalizable but will also better assess the impact that delivery and instructional methods have on student performance.

Conclusion

The pilot study presented in this paper sought to serve as a starting point in the development of a more comprehensive study evaluating the effectiveness of WBI and CI instruction. It was successful in this objective by highlighting design issues that can be improved when designing the larger study. Although not conclusive due to the inherent limitations of a pilot study, light was

shed on current differences in instructional methods that contribute to the WBI course studied being less effective than the CI course. In light of these findings, recommendations for improving the effectiveness of the WBI course are asserted and can be implemented in the short-term to improve the quality of learning. Light was also shed on the importance of having a means to determine assurance of learning to timely assess the quality of education.

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