

Using a Self-Report Survey to Understand How
Undergraduate Criminal Justice Students Approach Their Education

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ABSTRACT

Higher education is being held accountable like never before, as legislatures increasingly demand evidence that students are acquiring highly valued skills and abilities while earning bachelor's degrees. Learning outcomes assessments are undertaken within individual classes, at the departmental level, and at the institutional level to provide evidence of value-added competencies. This approach to the assessment of learning outcomes does not include an examination of how students approach their education. We contend that assessing how students manage their time and how they study are important to understanding learning outcomes. Our research provides a perspective to student learning that is absent in traditional learning outcomes literature.

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Introduction

There are at least two facets to the scrutiny of higher education today: persistence to graduation and accountability in the form of learning outcomes assessment. The stakes have never been higher for colleges and universities as measurable outcomes are increasingly expected to demonstrate competencies as value-added results of earning a bachelor's degree. The stakes are likewise high for students to earn a bachelor's degree, which has never been more important given our increasingly sophisticated society, competitive workplace and weak economy. Nevertheless, fewer students are earning bachelor's degrees today than in the past. While a college education has never been more accessible, completion rates have plummeted: 80 percent of college students completed a bachelor's degree in the 1960s, but today this has dropped to only 67 percent (Leonhardt, 2005).

Institutions of higher learning are devoting considerable attention and resources to student retention, especially in the early stages of the college experience. This is due to two compelling facts. First, one out of four freshmen fails to advance to sophomore status. Second, it is these freshmen who comprise over half of all students who never complete their bachelor's degrees (Academic College Testing, 2007; Blanc, Debuhr, & Martin, 1983; Martin and Hanrahan, 2004). Student retention is influenced by a variety of factors, including how "connected" students are to their universities (Tinto, 1975, 1982, 1987, 1993); the degree to which personal friendships with fellow college students are formed and take primacy over high school friendships (Paul & Brier 2001; Skahill, 2002); the extent to which students have adequate financial support to meet their basic living needs (Austin & McDermott 2003; Cabrera, Nora, & Castafieda 1992); and how well students are academically prepared for the rigors of a college education (Bonello, Swartz, & Davisson 1984; Michaels & Miethe 1989).

A review of the literature reveals a renewed interest in how student time management is related to retention, but this also has implications for learning outcomes assessment in that, as with grades, students have autonomy in how they perform. We extend this line of research into student time management through our exploratory study that focuses on a critical period in the pursuit of a bachelor's degree—the transition from freshman to sophomore status. We compare how freshmen allocated their time in academic and nonacademic activities with how they then spent their time as sophomores. The results of our research are important for at least three reasons. First, while research has examined how time use changes during the college years (Saenz & Barrera 2007), there has been no focus on the transition from freshman to sophomore standing. It is a critical period for students in that successes there dramatically increase the odds of degree completion. Second, previous research tends to focus on what students do with their time (i.e., the activity), but not on how *much* time they devote to the various activities competing for their attention. We addressed both in our study. Third, it would be beneficial for faculty members and advisors to know in what ways and to what degrees students learn to adjust how they allocate time during that transitional year. This takes on added significance in light of learning outcomes assessment since, generally speaking, proficient efforts will impact those measures as much as they do grades.

Literature Review

Recent research indicates that undergraduate students are in class or studying out-of-class for 25 to 30 hours per week, and out-of-class studying accounts for less than one-half of the total (Babcock & Marks, 2007). As a conservative estimate, students are spending less than 15 hours per week studying out-of-class. These findings do not appear to be a contemporary phenomenon since previous research shows that, for more than four decades, out-of-class studying has been declining (Babcock & Marks). From 1961 to 2004, studying out-of-class dropped from 40 hours

per week to as few as 23 hours per week, a phenomenon observed across demographic characteristics (race, sex, and socioeconomic status), academic majors, and all types of institutions of higher learning. Numerous explanations have been offered, including job and family responsibilities (Kulm & Cramer, 2006; McCartan, 1988; Nonis, Philhours, & Hudson, 2006; Stern & Nakata, 1991). Social and leisure activities also have reduced the time that students spend studying, and in some cases far more so than job and family responsibilities (Saenz & Barrera, 2007; U.S. Bureau of Labor Statistics, 2007).

Conventional wisdom once held that the more time students spent on learning material, the greater their likelihood of receiving higher grades (Chickering & Gamson, 1991; Michaels & Miethe, 1989; Rau & Durand, 2000). Recent research, however, strongly suggests that grades are not simply a reflection of “time on task,” but, rather, effective time management. Although previous research has not examined time management during the transition from freshman to sophomore status as we do here, the literature is replete with research on time management among undergraduates in general. For example, some studies indicate that employment can be detrimental to academic success for undergraduates (see Chickering, 1974; King & Bannon, 2002; Kuh, Gonyea, & Palmer, 2001; Pascarella, Edison, Nora, Hagedorn, & Terenzini, 1998; Pascarella & Terenzini, 2005), while research has also shown that employment may be beneficial to academic success because it encourages the development of time management skills (Kuh, 1995). Likewise, it is not simply whether participating in social or leisure activities adversely affects academic performance, but also the type of activity. For instance, some student organizations can encourage academic achievement or have little or no adverse effects on academic performance (Braddock, 1981; Hanks & Eckland, 1976; Hayek, Carini, O’Day, & Kuh., 2002; Pascarella, Flowers, & Whitt, 2001; Pike, 2000), while other organizations (e.g.,

fraternities or sororities) or participation in college sports can put students at an academic disadvantage (Hood, Craig, & Ferguson, 1992; Pascarella, Bohr, & Terenzini, 1995; Pascarella, Truckenmiller, Nora, Terenzini, Edison, & Hagedorn, 1999; Pike, 2003; Umbach, Palmer, Kuh, & Hannah, 2004). Similarly, while students may be distracted by family demands, family members can also reinforce academic commitments to place a priority on academic success and encourage the completion of a degree (Bank, Slavings, & Biddle 1990; Rendon, Jalamo, & Nora 2000). Many factors such as these therefore defy simple categorization as positive or negative influences.

The Present Study

Background

The present study is an outgrowth of an extensive survey of criminal justice and criminology majors and minors at Ball State University. We were interested in knowing about our students' personal and collegiate lives, and how they approached their undergraduate degrees. For example, we asked questions about where they lived (e.g., in an apartment or dorm room, or in their parent's home), if they had roommates, and if their roommates were considerate of their study habits. Questions were also asked about work and school. We wanted to know how much time was devoted to employment and academic activities. We asked students if they were able to manage their days so that there were no time conflicts between work and school. We asked students to estimate how much they worked during the typical week and the time of day they worked (morning, afternoon, or evenings). We asked about study habits and how they approached writing papers and preparing for examinations. We wanted to know how much time they allowed for writing research papers, how much time they allowed for preparing for examinations, and what study techniques they used. We also wanted to know about their friends.

We asked if their friends had GPAs lower, higher or about the same as theirs. We asked how they like to spend their time; about how much time each week they spent working out, volunteering, watching television, and partying with friends. For purposes of reporting findings for this paper, we selectively report findings that specifically pertain to how they allocated their time, if work interfered with academics, and how students prepared for examinations or met other course expectations. Given our research questions, we combined survey data with existing university data. Respondents' identities were kept confidential. Students choosing to participate provided their names and identification numbers on their surveys so that we could obtain data from university records.

Data Collection Procedures

In the spring of 2002, 2003 and 2004, all criminal justice and criminology majors and minors who were enrolled in Department of Criminal Justice and Criminology courses were asked to participate in our survey. One of us or another project member certified in human subject protections by the National Cancer Institute administered this survey at the beginning of each class over a two-week period. A script was read aloud which summarized the purpose of our survey and the protections in place for the well being of participants. The survey took approximately 20 minutes to complete. Those who agreed to participate did so by providing written informed consent, and they understood that their identities and responses would be handled confidentially.

Since we administered the survey for three consecutive years, the data allowed us to explore the freshman-sophomore transition because some students who had completed the survey as freshmen did so again as sophomores. The data sets for the 2002-2003 and 2003-2004 academic years each had a response rate exceeding 60 percent of the Department of Criminal

Justice and Criminology's majors and minors (around 600 student majors and 100 minors in both academic years). The two cohorts that completed the survey in both the freshman and sophomore years numbered 26 for spring 2002-2003, and 37 for spring 2003-2004. In hopes of aggregating the two cohorts into one sample for our exploratory analyses, we compared them on seven theoretically relevant variables available to us at the outset of their college experience: SAT verbal and math scores, credit hours earned at the time the survey (in the second semester of the freshman and sophomore years), grade point average (GPA), age, race, and sex (Table 1).

One matter to bear in mind is that the students in the aggregate sample earned an average of 30 credit hours during their first year of undergraduate studies. Of these 30 hours, however, only an average of six hours were earned in criminal justice coursework. Therefore, although the students in this study are criminal justice majors and minors, the range of classes taken is quite diverse. As a result, any one area or discipline is unlikely to have had dramatic influences on student behaviors or academic performance. With the exception of a slight but statistically significant difference between the two cohorts on earned credit hours, the two groups were comparable across the other variables for which the differences were both small and not statistically significant (Table 2). We therefore combined the two cohorts to form a single sample of $n=63$ for conducting the analyses presented in this paper.

A limitation to our exploratory study is that we only examined the activities of students who returned for their second year of college, so our findings cannot be generalized to students who either did not return to college, were not in class on the day the surveys were administered in one or both academic years, or who simply changed majors and removed themselves from our population. Nevertheless, our analysis is the first to shed light on time management among those

Table 1: Characteristics of the Two Cohorts

2002-2003 Cohort (N=26)					2003-2004 Cohort (N=37)			
Variable	N	%	\bar{X}	Range	N	%	\bar{X}	Range
Age			19.5	18 to 30			19.2	18 to 35
18	6	23.1			10	27.0		
19	14	53.8			25	67.6		
20	3	11.5			0	0.0		
21+	3	11.5			2	5.4		
Sex								
Male	15	57.7			18	48.6		
Female	11	42.3			19	51.4		
Race								
Caucasian	26	100.0			35 (4)	97.2		
Hisp./Latino	0				1	2.7		
Sat verbal raw score (1)								
			519	370 to 650			508 (3)	200 to 640
420 or less	3	15.0			4	13.3		
430 to 520	9	45.0			12	40.0		
530 and higher	8	40.0			14	46.7		
Sat math raw score (1)								
			517	390 to 650			525 (3)	340 to 670
420 or less	1	5.0			5	16.7		
430 to 520	10	50.0			9	30.0		
530 and higher	9	45.0			16	53.3		
Credits earned								
			14.9	9 to 26			17.0 (2)	11 to 29
Less than 12	2	7.7			1	2.9		
12 to 15	17	65.4			15	44.1		
16 to 18	5	19.2			8	23.5		
19 or more	2	7.7			10	29.4		
Overall GPA								
			3.00	1.80 to 3.93			2.90 (2)	0.00 to 4.00
Less than 2.00	1	3.8			4	11.8		
2.00 to 2.50	6	23.1			4	11.8		
2.51 to 3.00	6	23.1			7	20.6		
3.01 to 3.50	6	23.1			9	26.5		
3.51 to 4.00	7	26.9			10	29.4		

1. six scores missing; 2. missing data on three cases; 3 missing data on seven cases; 4. missing data on one case.

Table 2: Independent Samples t-test for Equality of Means and X²

Variable	t	df	Sig. (2-tailed)
Sat verbal	.468	48	.642
Sat math	-.338	48	.737
Credit Hours	-2.410	58	.019
Age	.485	61	.629
GPA	.454	58	.651

	X ²	df	Sig.
Race	.734	1	.392
Sex	.501	1	.479

who successfully transitioned from freshmen to sophomore status, and this provides new insights into this early and critical stage of undergraduate education.

Also, we used GPA as a proxy for student learning. Grades are complex phenomena that reflect dynamic social forces (e.g., academic policies and procedures) and unique individual-level influences (e.g., instructor expectations or changes that take place in the learner) (Walvoord & Anderson, 1998). Since there is no such thing as an absolutely objective evaluation, grades are used as crude measures of learning that are not only accepted by students, they are expected by students. Although imperfect, grades are used for a number of purposes (Hu, 2005). First, grades are a deeply entrenched way to communicate how well students have learned course material. Second, grades are used to determine who is awarded scholarships; who is admitted to academic programs; and who graduates. Third, job recruiters use grades as an indicator of work ethic and personal character.

Sample Demographics

As can be seen in Table 3, the average age for the aggregate sample was 19. Only around 13 percent of the students were 20 or older. Males and females were quite evenly represented. The average SAT verbal score was 512 and the average SAT math score was 522. Over half

Table 3: Combined Sample Demographics

Variable	N	%	\bar{X}	Range
Age			19.3	18 to 35
18	16	25.4		
19	39	61.9		
20	3	4.8		
21+	5	7.9		
Sex				
Male	33	52.4		
Female	30	47.6		
Race ¹				
Caucasian	61	98.4		
Hispanic/Latino	1	1.6		
Sat verbal raw score ²			512	200 to 650
420 or less	7	14.0		
430 to 520	21	42.0		
530 and higher	22	44.0		
SAT math raw score ²			522	340 to 670
420 or less	6	12.0		
430 to 520	19	38.0		
530 and higher	25	50.0		
Credits earned ³			16	9 to 29
Less than 12	3	5.0		
12 to 15	32	53.3		
16 to 18	13	21.7		
19 or more	12	20.0		
Overall GPA			2.95 (3)	0.00 to 4.00
Less than 2.00	5	8.3		
2.00 to 2.50	10	16.7		
2.51 to 3.00	13	21.7		
3.01 to 3.50	15	25.0		
3.51 to 4.00	17	28.3		

1. Data missing on one person's race; 2. Data missing on 13 cases; 3. Data missing on three cases
 *** p<.001; ** p<.01; * p<.05

(58.3%) of the sample had earned 15 or fewer credit hours in their first semester of college, while the GPA was 2.95.

Analytic Procedures

Although this exploratory study primarily seeks to describe student behaviors during the freshmen (Year 1) to sophomore (Year 2) transition through frequencies and measures of central tendency, we also utilize Pearson Product Moment Correlations and Kendall's tau-b statistic to ascertain the extent to which behaviors in Year 1 were associated with behaviors in Year 2. Here, 'predicting' sophomore behaviors based on freshman behaviors by way of strong Pearson Product Moment Correlations or Kendall's tau-b statistic indicates an absence of substantial behavioral changes, and this brings us to our key findings.

Findings

When asked the question, "Last fall, how many hours did you work during a typical week?" we found a strong correlation between their Year 1 and Year 2 responses. Students worked an average of two hours more per week (9.27 hours versus 7.38 hours) in Year 2 than in Year 1 (Table 4), and they also volunteered more in Year 2 than in Year 1 (2.10 hours in Year 1 versus 2.76 hours in Year 2).

In terms of course load, students in both years enrolled in very similar numbers of hours in the spring semester (≈ 15 hours). The number of hours that students studied during the typical week generally is believed to have a bearing on academic performance, yet the average figures were very similar in both their freshman and sophomore years (Table 4). Furthermore, not only was the change from Year 1 to Year 2 statistically non-significant, it was in the opposite direction from what one would expect if students were encountering more demanding courses, i.e. on average they studied slightly *fewer* hours per week (10.4) in Year 2 than in Year 1 (11.0).

Similarly, personal pursuits also experienced a decline in that students reported a decrease from Year 1 to Year 2 in hours spent relaxing (20.21 versus 18.31, respectively) and exercising (6.35 versus 5.60, respectively).

Table 4: Work, School, and Leisure Activities in the Freshman and Sophomore Years

Variable	Year 1	Year 2	R
Hours worked weekly	7.38 ³	9.27 ¹	.589***
Hours in class weekly	14.98 ²	15.03	.346**
Hours volunteering weekly	2.10 ³	2.76 ¹	.483***
Hours studying weekly	11.05 ²	10.41	.639***
Hours relaxing weekly	20.21 ²	18.31 ²	.402**
Hours exercising weekly	6.35 ¹	5.60 ¹	.821***

1=data missing on one case; 2=data missing on two cases; 3=data missing on three cases
 *** p<.001; ** p<.01; * p<.05

Employment seems to be a relatively benign influence on student allocation of time for academic pursuits regardless of whether it is a matter of class attendance or completing course assignments (Table 5). About 90% of respondents, in both years, reported that their job *never* interfered with being able to attend class. In Year 2, however, employment seems increasingly to have become a problem for students in both preparing for exams and studying. For example, while 25% of respondents in Year 1 reported that their jobs sometimes or always interfered with their preparations for examinations, that figure increased to 39% in Year 2. Similar changes were found for studying in that 28 % of respondents reported that employment sometimes or usually interfered with studying in Year 1, yet in Year 2 that rose to 40%. So, while students seem to be able to manage their routine weekly class schedules and course-related activities fairly well, the periodic demands that arise in the form of preparing for exams or writing papers

makes the combination of work and school a more challenging endeavor than it might at first appear.

Table 5: Employment Issues in the Freshman and Sophomore Years

Variable	Year 1 (%)	Year 2 (%)	Tau-b
Job interferes with making class ²			.115
Never	89.5	90.8	
Sometimes	8.8	8.2	
Always	1.7	0.0	
Job interferes with preparing for examinations ³			.280*
Never	75.4	60.7	
Sometimes	19.3	36.1	
Usually	5.3	3.3	
Job interferes with studying ²			.303*
Never	71.9	60.0	
Sometimes	22.8	31.7	
Usually	5.3	8.3	

Not applicable, live alone, data missing on one case; 2. data missing on 9 cases ; 3. data missing on 8 cases.

*** p<.001; ** p<.01; * p<.05

Table 6 shows how students generally approached examinations, research papers, and class attendance. While students might be adjusting to school-related responsibilities from Year 1 to Year 2, these measurable changes are relatively minor, i.e. reported behaviors in Year 1 are largely indistinguishable from those reported in Year 2. For instance, when compared to Year 1, students in Year 2 spent slightly less time preparing for examinations while devoting somewhat more time to writing papers. Absenteeism also was lower in Year 2, with perceptions of course difficulty suggesting that their classes were harder in Year 2 than in Year 1. Although course difficulty might account for lowered absenteeism, as well as more time spent on writing papers,

recall that, while students indicated that their courses were more difficult in Year 2, they committed less time to examination preparation.

Table 6: Prominent Academic Issues in the Freshman and Sophomore Years

Variable	Year 1	Year 2	R
Number of days typically spent preparing for examinations	3.17	3.06	.671***
Number of days typically started to write a paper before due date	4.43	5.13	.428***
Number of classes typically missed per month	1.75	1.69(1)	.372**
	%	%	tau-b
Perception of difficulty of classes			.233
Easy	1.6	3.2	
Somewhat easy	23.8	25.4	
Somewhat difficult	71.4	54.0	
Difficult	3.2	17.5	

*** p<.001; ** p<.01; * p<.05

Table 7 presents our findings on what students do to prepare for examinations during the transition from their freshman to sophomore years. We did not include all of the study methods students reported using, but we did come across several compelling findings. For one, sophomores are less likely to keep up with their assigned reading than when they were freshmen, and sophomores review their class notes less often than when they were freshmen. Also, while there was little change during the transition period in the use of flashcards, fewer sophomores formulated test questions and studied in groups than as freshmen. Taken as a whole, it appears that freshmen start their college careers with a range of study techniques from which to draw, but then utilize fewer of those and/or use them less frequently by their sophomore year.

Table 7: Study Practices: A Comparison of the Freshman to Sophomore Years

Variable	Year 1 (%)	Year 2 (%)	Tau-b
Kept up with assigned readings			.542***
Never	4.8	4.8	
Rarely	11.1	9.5	
Sometimes	36.5	34.9	
Usually	30.2	41.3	
Always	17.5	9.5	
Routinely reviewed class notes			.322**
Never	1.6	4.8	
Rarely	14.3	20.6	
Sometimes	33.3	27.0	
Usually	33.3	34.9	
Always	17.5	12.7	
Used flash cards			.260*
Never	39.7	41.3	
Rarely	20.6	19.0	
Sometimes	19.0	19.0	
Usually	11.1	14.3	
Always	9.5	6.3	
Formulated potential test questions ¹			.386***
Never	33.3	42.9	
Rarely	23.8	25.4	
Sometimes	30.2	15.9	
Usually	6.3	12.7	
Always	4.8	1.6	
Studied in groups			.350**
Never	31.7	31.7	
Rarely	12.7	20.6	
Sometimes	41.3	34.9	
Usually	12.7	9.5	
Always	1.6	3.2	

1. data missing one case;
 *** p<.001; ** p<.01; * p<.05

Discussion and Conclusions

Universities assess student learning to measure competencies across the curricula and for accreditation purposes. These assessments take place within individual courses, departmental

majors, and institutions, and they are used to hold higher education accountable to students and to legislatures. We think that assessments which overlook how students learn and how they approach their education lacks an important dimension to understanding learning. How students report spending their time, therefore, has important implications for academic performance. The students who participated in our exploratory study reported virtually no changes from their freshman to sophomore years in how they spent time on their studies, employment, and recreation. While students certainly adapt their lives to meet personal goals and academic and social expectations, we nevertheless found that their self-reported behaviors as sophomores are quite predictable based upon their freshman behaviors.

Where we found change, students made relatively minor adjustments. This is most notable in the areas of academics and employment, for example, students reported working more and studying less in Year 2 than in Year 1, while nevertheless describing their Year 2 courses as *more* difficult. Students generally used fewer study techniques and/or used them less frequently in Year 2 than in Year 1. Interestingly, there was no appreciable change in GPA over the two-year period, and that seems consistent with the stability in behaviors that we found. On the one hand, perhaps students had become better test-takers, i.e., an “economy of test preparation” phenomenon coming with experience in that they might have learned to study “smarter, not harder” and be rewarded with roughly similar or other otherwise acceptable results. On the other hand, the “economy of college life” may lead to another interpretation: academic goals reflecting the good-enough philosophy of “C is degree.”

Previous research posits that some students are unprepared to meet the rigors of an undergraduate education (Bonello, et al., 1984; Michaels & Miethe, 1989). The students in our study, however, seem to have arrived on campus adequately prepared to persist to their

sophomore year, and they appear to have done so by adjusting their efforts and schedules to meet their personal needs and academic goals. Importantly, they did so while also meeting the academic expectations posed by a wide range of faculty from diverse disciplines. Perhaps the most striking evidence of their ability to adjust to faculty expectations is that, in spite of working slightly more hours, they reported their jobs actually interfered less with their classes in their sophomore year. Time is finite, however, and students found it more difficult in their sophomore year to adjust their work schedules as their classes periodically became more demanding when exams were administered and research papers were due. Yet, our students reported they did not spend more time on either of these deliverables and, in fact, studied slightly less on average than students reported by other researchers (Babcock & Marks 2007). It is possible that our sample contained higher performing students than previous studies since our sample contained only those who were in class on the days the surveys were administered in both their freshman and sophomore years. Determining this was beyond our ability to ascertain.

It is noteworthy to mention that the students in our sample seem to have rather sophisticated time management skills. These students are 18 to 20 year olds who have managed to maintain above average GPAs while at the same time holding down jobs, volunteering, and spending time with their peers in social and leisure activities. While we would argue that it would be appropriate to spend more time on their studies, the students in our sample are getting results. They have not been dismissed from the university for poor grades and they are making progress toward graduation. Not everyone sets graduating with honors as a goal. After all, university graduation requirements typically are a 2.0 GPA or higher. And, it is not just academic skills that students acquire while earning a bachelor's degree. They also learn valuable time management skills. Future research may want to delve deeper into time management and

directly measure how it might be related to diverse learning outcomes. Researchers might also examine time management among those who fail to transition to their sophomore year.

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