

A Systems' Perspective of Assessment Based on Business Students' Perception of Prior Preparation: Ready or Not, Here They Come

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Assessment of learning is the educational equivalent of corporate quality assurance. Graduates are considered to be the outputs of universities and assessment of learning standards help ensure the quality of these human products. The quality of graduates is impacted by the quality of the students' input into the college as either freshmen or transfer students. Therefore, this study examined business students' perceptions of themselves and peer students with respect to background, experience, motivation, and abilities prior to and during their collegiate careers. The results show that the majority of business students believe themselves and their peers are adequately prepared for the business curricula.

Key Words: assessment, student preparedness, systems theory

Inputs? Processes? Outputs? Which matters the most when examining the preparedness of business graduates? In 2002 the Association to Advance Collegiate Schools of Business (AACSB) added the assessment of student learning to its list of accreditation requirements. Colleges of business were given approximately four years to conform to the new assessment of learning standards. So, since 2006, the buzzword around colleges has been *assessment*; and more than likely it will continue to be the priority for the future.

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Assessment of learning is the educational equivalent of corporate quality assurance. If graduates are considered to be the products or outputs of universities then assessment of learning standards aid in ensuring the quality of these human products. In fact student learning is the transformation that defines and shapes the final collegiate output. And as in the business world, our final outputs, college graduates, start with inputs—high school graduates. Therefore, one could easily argue that the quality of business school graduates is impacted by the quality of the students input into the college as either freshmen or transfer students. In other words the final product is only as good as its transformation plus its original inputs. Based on this assumption, the purpose of this study was to determine business students' perceptions of themselves and other business students with respect to background, experience, motivation, and abilities prior to and during their collegiate careers. The paper also examines student perceptions of their peers' drive and abilities.

Systems are viewed as the combination of inputs, transformation processes, and outputs. Since each system is comprised of these separate pieces, the nature of their individuality and collaboration will both significantly impact the operation of the system. Although this concept may be easier to grasp when examining tangible inputs and outputs, the same theory can readily be applied to more abstract elements. For instance, Coperthwaite and Knight (1995) utilized the systems approach to examine students' choices of academic major. The study examined the impact of certain inputs as well as other environmental factors on a student's decision to pursue a particular major field of study. Some of the inputs considered included race, gender, family background, academic ability, high school course work, and select personality factors. In fact the systems model has been applied numerous times to aid in explaining particular educational phenomena including cost-effectiveness of instructional programs (Alkin, 1969), student counseling (Fletcher, Benschoff & Richburg, 2003), health literacy (Marx, Hudson, Deal, Pateman & Middleton, 2007), e-learning programs (Mungania & Hatcher, 2004), dropout rates (Hoyle & Collier, 2006), and retention and graduation (Gansemmer-Topf & Schuh, 2006). Furthermore, researchers found strong relationships between graduation rates and both ethnicity (Aragon & Perez, 2006; Schmidt, 2007) and gender (California Postsecondary Education Commission, 2006). Thus, research suggests that in the field of education, particularly, inputs into the processes do, as theory suggests, significantly impact the outputs.

I. Methodology

To assess these perceptions, a questionnaire was administered to a convenience sample of 167 students from the capstone management course at a regional state university in the southern United States. The questionnaire was based on those used in previous studies (Tanner, 1983; Budden, 1985; Tanner, Noser, & Budden, 1992). In addition to four demographic questions, the questionnaire contained two nearly identical sets of seventeen (17) Likert statements/questions. On the first set of these, students were asked how they perceive themselves; and on the second set, students were asked for their perceptions of all business students. The instrument also asked the students to rank ten high school subject areas in order of their importance with regard to their effectiveness in effectively preparing business students for college.

II. Results

Table 1 shows the demographic profile of the respondents with respect to gender, major, grade-point average, and number of hours worked per week during a typical semester at the university. As depicted in the table, more than 51 percent of the respondents were males. There were more management, finance, and marketing majors than any other major; and more than 58 percent of the respondents had grade-point averages higher than 3.0. Also, more than 72 percent reported working between 16 and 40 hours per week during a typical semester.

Table 1
Demographic Profile of Respondents

Demographic Characteristic	Percent of Respondents
Gender:	
Male	48.5
Female	51.5
Academic Major:	
Accounting	14.0
Management Information Systems	10.4
Economics	2.4
Finance	22.0
Insurance & Risk Management	3.1
Management/General Business	26.2
Marketing	19.5
Petroleum Land Management	2.4
Grade-Point Average:	
0.0 – 1.0	0.0
1.1 – 2.0	1.2
2.1 – 3.0	40.6
3.1 – 4.0	58.2
Number of Hours Worked per Week per Semester:	
0 – 5	9.7
6 – 10	4.3
11 – 15	9.7
16 – 20	23.6
21 – 30	27.9
31 – 40	20.6
More than 40	4.2

Table 2 shows the results of the respondents' opinions of their own attitudes, skills, and preparations while matriculating through their academic careers. The table may be viewed in regard to three broad categories: communication/ verbal/ writing skills, quantitative skills, and general skills and abilities. Statements 1, 2, 8, 13, 14, 15, 16, and 17 would fall into the area of communication/verbal/writing skills. Statements 7, 11, and 12 focused on quantitative skills, and statements 3, 4, 5, 6, 9, and

10 were statements dealing with general skills and abilities. With respect to communication/verbal/writing skills, more than 74 percent of the respondents disagreed they had entered the business curriculum with poor writing skills; in fact, in a later question, more than 82 percent believed they had good writing skills. The majority of these respondents also said they generally possessed good verbal skills upon entering their business curriculum. Similarly, more than 88 percent perceived they were good listeners.

Table 2
Student Perceptions of Their own Skills, Preparations, and Experiences

Likert Statements	PERCENTAGE OF RESPONDENTS					Mean*	Standard Deviation*
	Strongly Disagree	Disagree	Neither A nor D	Agree	Strongly Agree		
1. I entered the business curriculum with generally poor writing skills.	29.9	44.9	10.8	10.8	3.6	2.13	1.07
2. My high school seemed to do a poor job of developing verbal skills	25.7	38.9	13.2	17.4	4.8	2.37	1.18
3. I felt I was sufficiently prepared for the rigors of college study.	4.2	13.2	19.1	49.7	13.8	3.56	1.02
4. I believe work experience contributes positively to my academic performance in college.	3.0	7.2	21.6	41.9	26.3	3.81	1.00
5. I believe I generally have a good knowledge of important current events.	1.2	15.0	12.6	53.3	17.9	3.72	0.97
6. I believe I will be able to apply knowledge obtained in the classroom to real world situations.	1.2	3.0	8.4	64.1	23.3	4.05	0.74
7. My high school emphasized math skills enough for students wishing to pursue careers in business.	4.8	15.5	12.6	47.3	19.8	3.62	1.11
8. I believe I had generally good verbal skills entering into the business curriculum.	1.8	7.8	14.5	62.6	13.3	3.78	0.84
9. I go to my classes prepared.	2.4	7.8	19.3	54.2	16.3	3.74	0.91
10. My participation in student organizations contributes positively to my academic performance in college.	7.8	18.6	46.1	19.7	7.8	3.01	1.01
11. I believe I had generally good quantitative skills entering into the business curriculum.	1.2	7.2	13.9	67.5	10.2	3.78	0.77
12. I have good reasoning ability.	0.0	1.8	4.2	59.0	35.0	4.27	0.63
13. I believe I am a better communicator than my friends who are non-business majors.	1.2	15.6	26.3	34.7	22.2	3.61	1.04
14. Universities need to emphasize communication skills even if it means decreasing emphasis in quantitative skill areas.	3.6	12.7	17.6	44.9	21.2	3.67	1.06

*1=Strongly Disagree; 2=Disagree; 3=Neither Disagree nor Agree; 4=Agree; 5=Strongly Agree

Table 2 (cont'd.)
Student Perceptions of Their own Skills, Preparations, and Experiences

Likert Statements	PERCENTAGE OF RESPONDENTS					Mean*	Standard Deviation*
	Strongly Disagree	Disagree	Neither A nor D	Agree	Strongly Agree		
15. My college emphasizes communication skills enough for its business students.	0.6	23.9	18.6	49.1	7.8	3.40	0.96
16. I believe I have good writing skills.	1.2	5.4	10.9	59.6	22.9	3.98	0.82
17. I believe I am a good listener.	0.0	5.4	6.0	50.3	38.3	4.22	0.79

*1=Strongly Disagree; 2=Disagree; 3=Neither Disagree nor Agree; 4=Agree; 5=Strongly Agree

Almost 60 percent believed they were better communicators than their friends who were not business majors, with more than 56 percent agreeing the business school was placing enough emphasis on communication skills. However, when asked if they thought that universities should put more emphasis on communication skills even if it meant decreasing emphasis on quantitative skills, more than 66 percent agreed.

More than two-thirds of the respondents thought their high schools had put enough emphasis on math skills for students wishing to major in business in college; and more than 77 percent believed their math skills were good prior to entering the business curriculum. Likewise, 95 percent reported having good reasoning ability.

With respect to general skills and abilities, more than 63 percent of these students thought that they were sufficiently prepared for the rigors of college study. More than 70 percent stated that they were prepared when they attended classes and that they had good knowledge of important current events. Additionally, more than 85 percent said they would be able to apply what they learned in the classroom to "real-world" situations. In relation, more than 68 percent thought work experience contributed positively to their college classroom performance. However,

only about 27 percent thought participation in student organizations contributed positively to academic performance.

Table 3 shows the results of the respondents' opinions of the attitudes, skills, and preparations of peer business students. As in Table 2, statements 1, 2, 8, 13, 14, 15, 16, and 17 focus on the area of communication/verbal/writing skills, statements 7, 11, and 12 deal with quantitative skills, and statements 3, 4, 5, 6, 9, and 10 assess students' perceptions of the general skills and abilities of other business students.

As the table shows, more than 42 percent of the respondents didn't believe that entering business students have poor writing skills; and in relation more than 61 percent thought that all business graduates had good writing skills. Also, more than 34 percent believed high schools do a bad job of developing verbal skills for other business graduates. However, almost 49 percent indicated that other students entering business curricula generally had good verbal skills. Also, more than 69 percent said that business students were good listeners. Additionally, more than 46 percent believed their peer business students were better communicators than non-business students.

Table 3
Student Perceptions of the Skills, Preparations, and Experiences of All
Other Business Students

Likert Statements	PERCENTAGE OF RESPONDENTS					Mean*	Standard Deviation*
	Strongly Disagree	Disagree	Neither A nor D	Agree	Strongly Agree		
1. Students entering the business curriculum generally have poor writing skills.	8.0	34.6	37.0	18.5	1.9	2.72	0.92
2. High schools, in general, seem to do a poor job of developing verbal skills.	6.2	28.6	29.2	31.7	4.3	2.99	1.02
3. Entering students in business seem to be sufficiently prepared for the rigors of college study.	4.3	22.4	32.3	39.1	1.9	3.12	0.93
4. Work experience contributes positively to a student's academic performance in college.	1.3	6.2	25.9	47.5	19.1	3.77	0.87
5. Business majors generally have a good knowledge of important current events.	0.6	9.3	19.1	62.4	8.6	3.69	0.78
6. Business graduates will be able to apply knowledge obtained in the classroom to real world situations.	1.2	3.0	8.4	64.1	23.3	3.88	0.77
7. High schools emphasize math skills enough for students wishing to pursue careers in business.	3.1	21.0	29.0	42.6	4.3	3.24	0.94
8. Students entering business as a curriculum generally have good verbal skills.	0.6	18.5	32.1	46.3	2.5	3.31	0.82
9. Business majors in my classes come to class prepared.	4.3	19.7	34.6	35.8	5.6	3.19	0.96
10. Participation in student organizations contributes positively to a student's academic performance in college.	3.1	13.1	39.4	35.0	9.4	3.34	0.93
11. Quantitative skills are generally lacking in students who choose business as a major in college.	5.5	37.7	32.1	22.2	2.5	2.78	0.94
12. Business majors have poor reasoning ability.	17.3	55.5	16.7	9.9	0.6	2.21	0.87

*1=Strongly Disagree; 2=Disagree; 3=Neither Disagree nor Agree; 4=Agree; 5=Strongly Agree

Table 3 (cont'd.)
Student Perceptions of the Skills, Preparations, and Experiences of All Other Business Students

Likert Statements	PERCENTAGE OF RESPONDENTS					Mean*	Standard Deviation*
	Strongly Disagree	Disagree	Neither A nor D	Agree	Strongly Agree		
13. Business graduates are better communicators than are other graduates.	1.3	11.3	41.5	37.7	8.2	3.40	0.84
14. Universities need to emphasize communication skills even if it means decreasing emphasis in quantitative skill areas.	3.1	12.4	26.5	44.4	13.6	3.53	0.98
15. My college emphasizes communication skills enough for its business students.	0.6	16.9	22.4	56.3	3.8	3.46	0.84
16. Business graduates have good writing skills.	0.6	8.4	26.9	55.7	5.4	3.59	0.75
17. Business students are good listeners.	0.0	5.6	25.3	58.0	11.1	3.75	0.73

*1=Strongly Disagree; 2=Disagree; 3=Neither Disagree nor Agree; 4=Agree; 5=Strongly Agree

With respect to quantitative skills, more than 46 percent agreed that high schools had placed enough emphasis on math skills for their fellow business majors. Similarly, most respondents believed that other business students possess the necessary quantitative skills and reasoning ability for a business major.

In the general skills and abilities areas, only 41 percent thought that other business majors were adequately prepared for the rigors of college study. However, about the same percentage believed their peers were prepared when attending classes. Seventy-one percent of respondents agreed that other business students have a good knowledge of important current events, and the majority (87%) agreed that other business students would be able to apply classroom knowledge to "real-world" situations. Also, about two-thirds of respondents indicated work experience made positive contributions to their fellow business majors'

academic performances. Respondents' responses were further examined to determine if there were differences between their perceptions of themselves and their perceptions of their peer students. The results of these significance tests are shown in Table 4. As the table shows, in all but 3 of the 17 pairs of Likert statements, the respondents exhibited significantly more positive perceptions of their own attitudes, skills, and preparations than they had of the attitudes, skills, and preparations of their fellow business students.

More specifically, with respect to the statements focusing on communications/verbal/writing skills, respondents believed that both they and their fellow business students were better communicators than their friends who were non-business majors. However, the agreement with this statement was significantly stronger for them. Also, the respondents did not believe they nor their fellow busi-

ness students entered the business curriculum with poor writing skills; but their level of disagreement was significantly stronger when speaking of themselves. They also agreed that as graduates, they and other

business students had good writing skills; but again, they felt more strongly about their own writing skills than their peers' writing skills.

Table 4
Comparisons of Student Perceptions of Their Own Skills, Preparations, and Experiences with Student Perceptions of the Skills, Preparations, and Experiences of All Other Business Students

Likert Statements	Student Perceptions of Themselves		Student Perceptions of Other Business Students		t-stat	p-value
	Means*	Std.Devs*	Means*	Std.Devs*		
1. I entered the business curriculum with generally poor writing skills /Students entering the business curriculum generally have poor writing skills	2.15	1.09	2.71	0.92	-5.52	.00**
2. My high school seemed to do a poor job of developing verbal skills/ High schools, in general, seem to do a poor job of developing verbal skills	2.37	1.17	2.99	1.02	-6.31	.00**
3. I felt I was sufficiently prepared for the rigors of college study/ Entering students in business seem to be sufficiently prepared for the rigors of college study	3.55	1.02	3.12	0.93	4.80	.00**
4. I believe work experience contributes positively to my academic performance in college/ Work experience contributes positively to a student's academic performance in college	3.81	1.01	3.77	0.87	0.62	.54
5. I believe I generally have a good knowledge of important current events/ Business majors generally have a good knowledge of important current events	3.73	0.97	3.69	0.78	0.55	.58
6. I believe I will be able to apply knowledge obtained in the classroom to real world situations/ Business graduates will be able to apply knowledge obtained in the classroom to real world situations	4.06	0.75	3.88	0.77	2.60	.01**
7. My high school emphasized math skills enough for students wishing to pursue careers in business/High schools generally emphasize math skills enough for students wishing to pursue careers in business	3.59	1.12	3.24	0.94	4.22	.00**
8. I believe I had good verbal skills when I entered the business curriculum/Students entering business as a curriculum generally have good verbal skills	3.76	0.84	3.31	0.82	6.11	.00**

*1=Strongly Disagree; 2=Disagree; 3=Neither Disagree nor Agree; 4=Agree; 5=Strongly Agree

**Significant at $\alpha = .05$

Table 4 (cont'd.)
Comparisons of Student Perceptions of Their Own Skills, Preparations, and Experiences with Student Perceptions of the Skills, Preparations, and Experiences of All Other Business Students

9. I go to my classes prepared/Business majors in my classes come to class prepared	3.76	0.90	3.19	0.96	6.46	.00**
10. My participation in student organizations contributes positively to my academic performance in college/Participation in student organizations contributes positively to any business student's academic performance in college	3.02	1.01	3.34	0.93	-4.87	.00**
11. I believe I generally had poor quantitative skills when I entered the business curriculum/Quantitative skills are generally lacking in students who choose business as a major in college	2.22	0.76	2.79	0.94	-6.66	.00**
12. I have good reasoning ability/ Other business majors have good reasoning ability	4.28	0.64	3.79	0.87	6.26	.00**
13. I believe I am a better communicator than my friends who are non-business majors/In general, other business graduates are better communicators than are other graduates	3.60	1.06	3.40	0.84	2.70	.01**
14. Universities need to emphasize communication skills even if it means decreasing emphasis in quantitative skill areas	3.68	1.07	3.52	0.98	2.30	.02**
15. My college emphasizes communication skills enough for its business students/ My college emphasizes communication skills enough for its business students	3.39	0.95	3.46	0.84	-0.92	.36
16. I believe I have good writing skills/Other business graduates have good writing skills	3.96	0.82	3.59	0.75	4.55	.00**
17. I believe I am a good listener/Other business students are good listeners	4.23	0.77	3.75	0.73	6.92	.00**

*1=Strongly Disagree; 2=Disagree; 3=Neither Disagree nor Agree; 4=Agree; 5=Strongly Agree

**Significant at $\alpha = .05$

Similarly, they agreed they and other business students had good verbal skills, were better communicators, and better listeners than non-business students. However, as before, in all instances they showed a significantly stronger level of agreement when responding about their

own skill level than that of their peer students.

With respect to quantitative skills, respondents believed their own high schools had placed enough emphasis on these skills when compared to their fellow business majors. Likewise, the respondents did not think either they or their fel-

low business majors entered the business curriculum with poor quantitative skills and that they both had good reasoning ability. Yet again they felt significantly stronger about their own skill levels.

With respect to general skills and abilities, the respondents had significantly stronger feelings concerning preparation level as compared to their fellow business majors. They also believed they were more likely to be prepared for classes than other business students.

Moreover, respondents indicated work experience would enhance both their and their peer business students' academic performances. Interestingly, however, they believed participation in student organizations would help other business students' academic performances more than their own.

Finally, respondents were asked to rank, in order of importance, high school subjects which would be most helpful to students majoring in business. These rankings are shown in Table 5. As the table shows, English and math were the two top-rated subjects in importance with English narrowly taking the first-place spot. Exactly 76 percent of the respondents ranked English as first or second in importance; whereas,

more than 57 percent ranked math as first or second. The next three subjects—economics, bookkeeping, and science, respectively, were placed much lower. The subjects placing last in order of importance were foreign languages, history, and music.

III. Conclusions

The results of this study indicate that business students believe both themselves and their fellow business students are adequately prepared for college curricula. However, some general outcomes of this study warrant further discussion. The AACSB now requires student learning outcomes assessment at the degree/program level for all collegiate schools of business. A system of learning outcome assessment consists of a focus on continuous improvement coupled with a focus on quality instruction and learning. The university education process mimics that of a manufacturer taking supplier-provided inputs and then converting those to outputs (goods or services) through the inclusion of value-added processes. In an academic setting, the high school graduate is the input, his/her progression through the college curriculum

Table 5
Ranking of High School Subjects in Order of Importance to Students
Majoring in Business

<u>High School Subject Area</u>	<u>Ranking</u>
English	1
Math	2
Economics (Free Enterprise)	3
Speech	4
Bookkeeping	5
Civics	6
Science	7
Foreign Languages	8
History	9
Music	10

is the process, and the end product is the college graduate (the knowledge, skills, and competencies that this student now possesses as a result of his/her journey through college) (Sampson, 2001). Therefore, value-added processes within the university setting are not the only determining factors ensuring quality collegiate output. The characteristics of the inputs themselves must be considered—including both tangible and intangible elements. For example, students' perceptions regarding their preparedness for college may have a negative impact on their abilities to succeed. Thus, although assessment of learning allows colleges of business the opportunity to address weaknesses in a value-added system, this process may very well be flawed if the characteristics of the inputs themselves are flawed. Recognition and consideration of this will help educators with interpretations of assessment outcomes.

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