The assessment of business knowledge and integration for assurance of learning: an application

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Abstract

AACSB has mandated that the documentation of student learning will become increasingly important in decisions regarding initial accreditation and reaffirmation. Assurance of learning is a major part of the accreditation and reaffirmation process. All universities will need to develop a set of learning goals for all their programs. These learning goals need to be assessed using a systematic set of learning experiences. The focus is on program assessment. Each student needs to be exposed to these set of learning experiences and the results need to be documented, the results analyzed and necessary changes made to the curriculum in order to "close the loop" for assessment. One important learning goal for business programs is the assessment of business knowledge and skills. Students need to be measured on this learning goal throughout the curriculum. The present study, using a rubric developed by a doctoral student, attempted to measure business knowledge and skills using a simulated marketing environment. The simulation employed was the Market Place. It was chosen because of its complexly dynamic environment, integration of functional areas and the particular game level chosen was ideal for capstone courses. Students competed against each other for a total of eight quarters. There were six teams involved in the simulation. The performance tool was a balanced scorecard. Students took the assessment instrument during quarter 6 decisions. The results indicated that those teams who scored highest on the balanced scorecard had significantly higher scores on comprehension and understanding of business knowledge and skills.

Keywords: Rubrics, learning, business knowledge, integration, simulation

Introduction

Student learning should be the central focus of all university programs. Assessment of student learning is becoming increasingly important at all program levels in all colleges and universities. Furthermore, regarding the achievement and maintenance of accreditation, assurance of student learning is becoming a major part of the documentation required for successful accreditation and maintenance of accreditation. Specifically, the Association to Advance Collegiate Schools of Business International (AACSB), has placed an increasing emphasis on the role of Assurance of Learning in the initial and maintenance of accreditation process. In the future 20-40% of schools will probably be given a "sixth year" for failing to assess and document successfully the achievement of student learning. (1)

As a first step in the assessment of learning, AACSB recommends that the school must develop a list of the learning goals for which it will demonstrate Assurance of Learning. This list of learning goals derives from or is consonant with the school's mission. The mission and objectives set out the intentions of the school and the learning goals say how the degree programs demonstrate the mission. That is, the learning goals describe the desired educational accomplishments of the degree programs. The learning goals translate the more general statement of the mission. (2)

Learning goals serve two purposes. First, learning goals convey to participants, faculty, and students, the educational outcomes, toward which they are working. This helps in setting priorities and emphasis, designing learning experiences, and fulfilling educational expectations. (3) One of the approaches to assessing learning goals is the development of rubrics. A rubric is a scoring tool that lays out the specific expectations for an assignment. Rubrics divide an assignment into its component parts and provide a detailed description of what constitutes acceptable or unacceptable levels of performance for each of the parts. In its simplest form, the rubric includes a task description (the assignment), a scale of some sort (levels of achievement), the dimensions of the assignment (a breakdown of the skills/knowledge involved in the assignment), and descriptions of what constitutes each level of performance (specific feedback) all set out on a grid. (4)

Rubrics can assess a variety of learning goals. One learning goal that is probably assessed at many colleges and universities in business schools is business skills and knowledge. At the program level, rubrics would aid in ascertaining whether students in required core courses are achieving some acceptable level of performance as pre-determined by curriculum and Assurance of Learning committees. This assessment can be done in a variety of ways. Some methods are major field tests, demonstration through stand-alone testing on performance, and course-embedded measurement. Course embedded assessment is one of the approaches recommended by AACSB as an approach to Assurance of Learning. Required courses may expose students to systematic learning experiences designed to produce graduates with the particular knowledge or abilities specified in the school's learning goals. The course-embedded measurements must be constructed to demonstrate whether students achieve the school's learning goals, and the measurement must be a mandated part of that course. (5)

AACSB in standard 18 states that "Learning at the master's level is developed in a more integrative interdisciplinary fashion than undergraduate education." (6) Therefore, it seems appropriate to develop a rubric in capstone courses that assesses integration as one approach to satisfy the above standard. A rubric for integration and business knowledge has been designed

and tested by Bonney as part of his dissertation research. (7) This rubric will be used in the study to measure integration and business knowledge.

Methodology

The present study will measure integration and business knowledge through an experiential learning format called Marketplace. The "simulation" places students in a simulated business environment. The industry is the microcomputer industry and students compete in teams against other teams and success is assessed by several performance measures that comprise the balanced score card. Behrman and Levin in the Harvard Business Review suggest that business schools were not doing their job partly because of the primary methods of teaching. Lecture, textbook and case study. (8) Lectures should be used for concepts and language, knowledge acquisition, sequential presentation of information, cognitively passive, right and wrong, and highly structured classrooms. The bottom line is that the lecture method is efficient. However, this format does not do enough to encourage creativity. The integrating of functional material, problem solving, decision-making, risk-taking, or interpersonal skills. The limitation with case studies is that students do not have to execute their decisions and live with the consequences. They are also not required to respond to competitive moves on to deal with the decisions of others. (9) Simulations can go farther than traditional methods in bridging the gap between the classroom and the world of real-life business decision-making. Simulations are self-contained. Further, the more sophisticated games offer a broad scope and provide students with substantial authority and responsibility. Unlike case analysis, with simulations, students are required to analyze and solve complex problems, think in strategic ways, and integrate material across disciplines. In addition, they must act on their decisions and deal with the consequences; this includes adjusting strategies in response to changes in end-user needs or wants and to competitive moves or countermoves. (10) Consequently this study has chosen Marketplace as the experiential procedure to assess the integration and knowledge rubric.

The Market Place consists of eight quarter's in which students make decisions. In the first quarter, they organize their company and order research. In the second quarter, they engage in strategic planning. Quarters three and four are devoted to test marketing. Based on the results of test marketing, they launch their grand strategy in quarters five through eight. The rubrics for this study were used after 5th quarter results were processed and after students had spent considerable time on quarter six decisions.

Three classes were chosen as the sample for this study. The classes were (1) an undergraduate capstone marketing course, (2) a combined course emphasizing integration and (3) a marketing management course emphasizing the integration of concepts in finance, accounting, statistics, production, organizational behavior and marketing. The sample size for the first course was 28. The sample size for the second course was 36 and the sample size for the third course was 25. Students were informed in all courses that the assessment was not related to evaluation and that the results were being used for AACSB accreditation.

Discussion

The undergraduate capstone class results are presented in Table 1 and 2. Table 1 indicates that the top two teams, Darkside and Initech, also have the highest total cumulative points from the AOLA assessment (396 and 389 respectively). The three lowest teams (SAAA,

Jargh and Savvy Tech) have the lowest total points on the AOLA assessment. There appears to be a strong relationship between success on the balanced scorecard and performance on the AOLA assessment. Dunder-Mifflin is an exception. They did exceedingly well on the total point section and still performed poorly on the balanced scorecard. A closer inspection of the data reveals that their problems lie in strategy-tactics alignment. They failed to integrate the operational level with their strategic initiatives.

Regarding individual summaries, Dunder – Mifflin's effectiveness was reduced by one very weak performer at 262 points. If the group process was dominated by this individual, it would explain why the team was weak on strategy-tactics alignment.

Analyzing the data on functional areas and its relation to team member's chosen area of responsibility, Darkside has more of team approach to decision-making. If you look at total points of Darkside and their team member's contribution outside of their area of contribution and in their own area of responsibility, the total points for all team members are significantly higher than the contributions outside of their area by the team of Jargh. This indicates that the high performing group achieved "groupness" while the low performing team remained stronger in their individual areas of responsibility.

An analysis of Section VI on Table 1 indicates that Darkside was significantly more effective than Jargh at predicting the strength and weaknesses of competitions, also, Darkside was significantly more effective at strategy-tactics alignment than Jargh. Finally, Darkside's ability to recognize potential threats was significantly higher than the team of Jargh. These three results indicate greater awareness, of swot elements in contrast to Jargh and thereby leading to more successful implementation by Darkside on strategy-tactics alignment.

The combined course results are in Tables 3 and 4. Table 3 indicates that Logic Solutions with a high balanced scorecard has the highest total cumulative points in contrast to Pomegranate with a very low balanced scorecard. Pomegranate has the lowest total points on AOLA. The data on total points for Aspire indicates a very low score on total points on the AOLA. However, team member 5 has extremely low individual points on the AOLA and does explain why the average for Aspire is so low even though they have the highest balanced scorecard in the class. Also, if you look at team member 5's individual scores on the various functional areas, she has scored consistently low in all of these areas. This was an inefficient and effective team member who brought down the group's total points. Conversely, the team Logic Solutions, had the highest average percentage in all the functional areas. However, team member 5 has also contributed to Aspire's low average rankings on the functional areas.

Further analysis of the data on functional areas and its relation to team member's chosen area of responsibility, Logic Solutions had more of a team approach to decision-making as evidenced by the narrow dispersion of scores in total contribution outside their area of responsibility and their own areas of responsibility. The total points for team members is significantly higher for Logic Solutions as compared to the team of Pomegranate.

An analysis of section VI on Table 3 indicates that Logic Solutions was significantly more effective than Pomegranate in predicting strengths and weaknesses of other teams. The data is even stronger in the area of in-depth knowledge of operations. The percent is 26 versus 70 respectively. The data also strongly supports that Logic Solutions has a significantly higher percentage on strategy-tactics alignment than Pomegranate. The percent was 82 versus 64. However, Pomegranate was significantly stronger than Logic Solutions on recognizing potential competitive threats but they didn't seem capable of responding to these threats as well as Logic Solutions as evidenced by their weakness in strategy-tactics alignment.

The marketing management class results are presented in Tables 5 and 6. Table 5 indicates that White, with the highest balanced scorecard, has the highest total points on the AOLA in contrast to Blue who has one of the lowest balanced scorecards and the lowest total points on the AOLA. The results suggest that White has integrated more successfully and has a more comprehensive understanding of business knowledge than the Blue team. Also, the Blue team has less variation of total individual points on the AOLA indicating that the team was relatively equal with regard to the execution of performance in the market place. In contrast, team member number 4 on the White team did not appear as strong in his AOLA individual total points. Perhaps more intervention earlier in the game may have rectified that problem.

Further analysis of the data on functional areas and its relation to team members contribution in areas of responsibility as well as contributions to areas outside of their responsibility indicate that White had more of a team approach to the decision-making as evidenced by the narrower dispersion of scores in total contribution outside their area of responsibility and also had significantly higher scores than Blue in their chosen areas of responsibility whereas Blue had a wider dispersion of scores in their team members contributions outside their areas of responsibility.

An analysis of section on Table 3 indicates that White was significantly more effective than Blue in predicting the strengths and weaknesses of other teams and also in understanding potential competitive threats than the Blue team. Two interesting findings in Table 3 are that Blue had the same percentage of in-depth knowledge of operations as the White team and had a better, but not significantly, strategy-tactics alignment than the White team. A possible explanation of these two findings is that Blue understood the concept of strategy-tactics links but pursued the wrong strategy. Additionally, they may have had a better understanding of internal factors but did not recognize the relation of these phenomena to the selection of a correct strategy positioned effectively against external threats.

Summary and Conclusion

The data in all three classes indicates that the strongest performers have a higher comprehension of business concepts and knowledge and are able to synthesize and integrate better than teams who are weak performers. It also appears that the stronger teams have members who have higher contributions outside their areas of responsibility than team members from weaker teams. More research is needed to confirm these conclusions. This instrument will aid AACSB schools in demonstrating assurance of learning in the areas of integration and business knowledge and skills for initial and maintenance of accreditation requirements.

References

1. AACSB Maintenance of Accreditation Seminar, June 1, 2007, Tampa, FL.
2. AACSB International Eligibility Procedures and Accreditation Standards for Business Accreditation, January 31, 2007, Tampa, FL, 60.
3. AACSB International: Eligibility Procedures and Accreditation Standards for Business Accreditation, January 31, 2007, Tampa, FL, 61.
4. Stevens, D.D. & Levi, A.J. (2005) Introduction to Rubrics: An Assessment Tool to Save Grading Time, Convey Effective Feedback and Promote Student Learning, Sterling, VA, Stylus Publishing Co. 3.

5. AACSB International: Eligibility Procedures and Accreditation Standards for Business Accreditation, January 31, 2007, Tampa, FL, 65.
6. AACSB International: Eligibility Procedures and Accreditation Standards for Business Accreditation, January 31, 2007, Tampa, FL, 74.
7. Bonney, F. L. (2008). The Importance of Market Opportunity Recognition Mechanisms in Interfunctional Management Teams. Doctoral Dissertation, University of Tennessee-Knoxville, Knoxville, TN.
8. Berhman, J.N. & Levin, R.I. (1984, Jan. Feb). Are Business Schools Doing Their Job? *Harvard Business Review,* 62 (1) 140-147.l
9. Bonona, T. (1989). Learning with Cases, Harvard Business School, Boston, MA.
10. Burns, A.C. & Gentry, J.W. (1992) Simulations in Marketing: Past, Present, and Future, *Marketing Education Review,* 3-13.

Table 1 Team Scores Undergraduate Class

Instructor Summary AOLA Report
Team Summary | Individual Summary | Report score as
points & percent points percent

Rockhurst_Hawkins_Sp08

	Darkside Inc.	SAAA	Jargh	SavvyTech	Initech	Dunder-Mifflin
Total [pts]	396	222	221	282	389	342
Total [%]	57	32	32	40	56	49
Game Percentile [%]	100	20	0	40	80	60
Course Percentile [%]	100	20	0	40	80	60
Quarter 8 Balanced Scorecard	602.574	16.435	0	2.334	42.442	0.022
	Darkside Inc.	**SAAA**	**Jargh**	**SavvyTech**	**Initech**	**Dunder-Mifflin**
Quarter 8 Cumulative Balanced Scorecard	867.346	10.199	0	2.042	93.702	0.003
Time Spent Through Quarter 8 [min]	7309	4742	3968	4252	5593	2696
Break down by category						
Marketing [pts]	141	100	81	104	141	123
Marketing [%]	54	38	31	40	54	47
Sales Management [pts]	106	31	50	78	94	85
Sales Management [%]	62	18	29	46	56	50
Finance and Accounting [pts]	87	54	51	50	90	79
Finance and Accounting [%]	62	39	36	36	64	56
Manufacturing [pts]	62	37	40	51	64	55
Manufacturing [%]	48	28	31	39	49	42
Break down by section						
Section II. Q5 Market Leaders [pts]	22	30	15	28	54	40
Section II. Q5 Market Leaders [%]	22	30	15	28	54	40
Section III. Potential Competitive Threats [pts]	44	23	15	36	40	38
Section III. Potential Competitive Threats [%]	55	28	19	45	50	47
Section IV. Q6 Market Leader Predictions [pts]	32	10	10	12	16	33
Section IV. Q6 Market Leader Predictions [%]	46	14	14	17	23	46
Section V. Q5 Strengths and Weaknesses [pts]	116	60	63	88	96	93
Section V. Q5 Strengths and Weaknesses [%]	73	38	39	55	60	58
Section VI. Q6 Strength and Weaknesses Predictions [pts]	56	48	30	16	40	38
Section VI. Q6 Strength and Weaknesses Predictions [%]	80	68	43	23	57	54
Section VII. Q5 In-depth Knowledge of Operations [pts]	126	52	88	102	143	102
	Darkside Inc.	**SAAA**	**Jargh**	**SavvyTech**	**Initech**	**Dunder-Mifflin**
Section VII. Q5 In-depth Knowledge of Operations [%]	57	23	40	47	65	46
Strategy - Tactics Alignment						
Overall [%]	79	53	88	71	73	68
Marketing Tactics [%]	76	50	75	80	68	75
Sales Management Tactics [%]	87	50	100	53	80	67
Finance and Accounting Tactics [%]	65	56	88	80	75	69
Manufacturing Tactics [%]	90	56	88	70	70	63

Table 2 Individual Scores Under-graduate

	Total [pts]	Total [%]	Team Percentile [%]	Game Percentile [%]	Course Percentile [%]	Quarter 8 Balanced Scorecard	Quarter 8 Cumulative Balanced Scorecard	Time Spent Through Quarter 8 [min]	Break down by category: Marketing [pts]	Marketing [%]	Sales Management [pts]	Sales Management [%]	Finance and Accounting [pts]	Finance and Accounting [%]	Manufacturing [pts]	Manufacturing [%]
Darkside Inc.																
Student 1	462	66	100	100	100	602.574	867.346	2186	146	56	120	71	106	76	90	69
Student 2	362	52	25	69	69	602.574	867.346	696	174	67	70	41	88	63	30	23
Student 3	426	61	75	92	92	602.574	867.346	1795	126	48	120	71	100	71	80	62
Student 4	320	46	0	50	50	602.574	867.346	1436	110	42	110	65	70	50	30	23
Student 5	408	58	50	85	85	602.574	867.346	1196	148	57	110	65	70	50	80	62
SAAA																
Student 6	314	45	100	42	42	16.435	10.199	335	140	54	74	44	50	36	50	38
Student 7	236	34	33	15	15	16.435	10.199	1966	118	45	10	6	68	49	40	31
Student 8	286	41	67	35	35	16.435	10.199	1853	122	47	38	22	88	63	38	29
Student 9	50	7	0	0	0	16.435	10.199	588	20	8	0	0	10	7	20	15
Jargh																
Student 10	144	21	0	4	4	0	0	647	74	28	10	6	40	29	20	15
Student 11	224	32	33	12	12	0	0	1231	70	27	58	34	46	33	50	38
Student 12	270	39	100	27	27	0	0	1336	80	31	70	41	70	50	50	38
Student 13	244	35	67	19	19	0	0	479	98	38	60	35	46	33	40	31
SavvyTech																
Student 14	290	41	50	38	38	2.334	2.042	585	100	38	90	53	60	43	40	31
Student 15	210	30	0	8	8	2.334	2.042	782	90	35	70	41	20	14	30	23
Student 16	274	39	25	31	31	2.334	2.042	1135	98	38	70	41	50	36	56	43
Student 17	318	45	75	46	46	2.334	2.042	910	100	38	80	47	70	50	68	52
Student 18	320	46	100	50	50	2.334	2.042	839	130	50	80	47	50	36	60	46
Initech																
Student 19	420	60	75	88	88	42.442	93.702	789	164	63	78	46	100	71	78	60
Student 20	376	54	50	77	77	42.442	93.702	1851	128	49	88	52	80	57	80	62
Student 21	460	66	100	96	96	42.442	93.702	1988	154	59	106	62	100	71	100	77
Student 22	358	51	25	65	65	42.442	93.702	274	138	53	100	59	90	64	30	23
Student 23	330	47	0	58	58	42.442	93.702	692	120	46	100	59	80	57	30	23
Dunder-Mifflin																
Student 24	370	53	67	73	73	0.022	0.003	791	140	54	80	47	100	71	50	38
Student 25	390	56	100	81	81	0.022	0.003	716	130	50	120	71	70	50	70	54
Student 26	344	49	33	62	62	0.022	0.003	563	124	48	60	35	90	64	70	54
Student 27	262	37	0	23	23	0.022	0.003	627	96	37	80	47	56	40	30	23

Break down by section

Table 2 Individual Scores Under-Graduate (continued)	Section II. Q5 Market Leaders [pts]	Section II. Q5 Market Leaders [%]	Section III. Potential Competitive Threats [pts]	Section III. Potential Competitive Threats [%]	Section IV. Q6 Market Leader Predictions [pts]	Section IV. Q6 Market Leader Predictions [%]	Section V. Q5 Strengths and Weaknesses [pts]	Section V. Q5 Strengths and Weaknesses [%]	Section VI. Q6 Strength and Weaknesses Predictions [pts]	Section VI. Q6 Strength and Weaknesses Predictions [%]	Section VII. Q5 In-depth Knowledge of Operations [pts]	Section VII. Q5 In-depth Knowledge of Operations [%]
Darkside Inc.												
Student 1	30	30	40	50	40	57	150	94	50	71	152	69
Student 2	30	30	50	63	20	29	100	63	60	86	102	46
Student 3	30	30	60	75	40	57	90	56	60	86	146	66
Student 4	0	0	40	50	40	57	90	56	60	86	90	41
Student 5	20	20	30	38	20	29	150	94	50	71	138	63
SAAA												
Student 6	30	30	50	63	10	14	120	75	40	57	64	29
Student 7	50	50	30	38	10	14	50	31	50	71	46	21
Student 8	40	40	10	13	20	29	70	44	50	71	96	44
Student 9	0	0	0	0	0	0	0	0	50	71	0	0
Jargh												
Student 10	20	20	0	0	0	0	40	25	20	29	64	29
Student 11	10	10	10	13	0	0	70	44	10	14	124	56
Student 12	10	10	40	50	20	29	80	50	30	43	90	41
Student 13	20	20	10	13	20	29	60	38	60	86	74	34
SavvyTech												
Student 14	40	40	20	25	10	14	90	56	10	14	120	55
Student 15	20	20	20	25	10	14	60	38	20	29	80	36
Student 16	30	30	60	75	30	43	70	44	0	0	84	38
Student 17	10	10	50	63	10	14	90	56	20	29	138	63
Student 18	40	40	30	38	0	0	130	81	30	43	90	41
Initech												
Student 19	60	60	30	38	30	43	100	63	40	57	160	73
Student 20	60	60	20	25	10	14	100	63	40	57	146	66
Student 21	80	80	50	63	10	14	90	56	60	86	170	77
Student 22	60	60	50	63	30	43	100	63	20	29	98	45
Student 23	10	10	50	63	0	0	90	56	40	57	140	64
Dunder-Mifflin												
Student 24	50	50	50	63	30	43	100	63	40	57	100	45
Student 25	50	50	60	75	40	57	110	69	40	57	90	41
Student 26	40	40	30	38	30	43	90	56	40	57	114	52
Student 27	20	20	10	13	30	43	70	44	30	43	102	46

Table 3 Team Scores Combined Course

Instructor Summary AOLA Report

Team Summary | Individual Summary | Report score as

points & percent points percent

Rockhurst_Daley_Sp08

	Pomegranate Computers	Blue Shoe Inc.	ICS	EAS	Aspire	Logic Solutions Inc
Total [pts]	321	420	455	368	330	502
Total [%]	46	60	65	53	47	72
Game Percentile [%]	0	60	80	40	20	100
Course Percentile [%]	0	60	80	40	20	100
Quarter 8 Balanced Scorecard	0.266	869.252	18.284	0	1934.724	197.451
Quarter 8 Cumulative Balanced Scorecard	0.845	105.064	17.367	0	2161.635	433.104
Time Spent Through Quarter 8 [min]	4353	6803	5276	4575	6961	5760
Break down by category						
Marketing [pts]	141	173	164	136	101	174
Marketing [%]	54	67	63	52	39	67
Sales Management [pts]	63	113	125	96	99	125
Sales Management [%]	37	66	74	56	58	74
Finance and Accounting [pts]	64	77	86	65	74	100
Finance and Accounting [%]	46	55	61	46	53	71
Manufacturing [pts]	53	57	80	73	56	104
Manufacturing [%]	41	44	62	56	43	80
Break down by section						
	Pomegranate Computers	**Blue Shoe Inc.**	**ICS**	**EAS**	**Aspire**	**Logic Solutions Inc**
Section II. Q5 Market Leaders [pts]	40	50	48	63	36	63
Section II. Q5 Market Leaders [%]	40	50	48	63	36	63
Section III. Potential Competitive Threats [pts]	44	33	32	33	12	33
Section III. Potential Competitive Threats [%]	55	42	40	41	15	41
Section IV. Q6 Market Leader Predictions [pts]	50	55	62	60	58	65
Section IV. Q6 Market Leader Predictions [%]	71	79	89	86	83	93
Section V. Q5 Strengths and Weaknesses [pts]	74	73	118	83	98	123
Section V. Q5 Strengths and Weaknesses [%]	46	46	74	52	61	77
Section VI. Q6 Strength and Weaknesses Predictions [pts]	56	53	58	43	40	65
Section VI. Q6 Strength and Weaknesses Predictions [%]	80	76	83	61	57	93
Section VII. Q5 In-depth Knowledge of Operations [pts]	57	155	137	88	86	155
Section VII. Q5 In-depth Knowledge of Operations [%]	26	71	62	40	39	70
Strategy - Tactics Alignment						
Overall [%]	64	71	74	74	58	82
Marketing Tactics [%]	64	67	76	80	64	85
Sales Management Tactics [%]	67	72	73	67	47	92
Finance and Accounting Tactics [%]	60	71	60	75	60	63
Manufacturing Tactics [%]	65	75	85	75	60	88

Table 4

Individual Scores Combined Course

	Break down by category															
	Total [pts]	Total [%]	Team Percentile [%]	Game Percentile [%]	Course Percentile [%]	Quarter 8 Balanced Scorecard	Quarter 8 Cumulative Balanced Scorecard	Time Spent Through Quarter 8 [min]	Marketing [pts]	Marketing [%]	Sales Management [pts]	Sales Management [%]	Finance and Accounting [pts]	Finance and Accounting [%]	Manufacturing [pts]	Manufacturing [%]
Pomegranate Computers																
Student 28	362	52	50	18	18	0.266	0.845	1082	140	54	84	49	80	57	58	45
Student 29	428	61	100	57	57	0.266	0.845	572	218	84	60	35	70	50	80	62
Student 30	366	52	75	25	25	0.266	0.845	377	148	57	100	59	70	50	48	37
Student 31	260	37	25	7	7	0.266	0.845	1284	120	46	40	24	60	43	40	31
Student 32	190	27	0	4	4	0.266	0.845	182	80	31	30	18	40	29	40	31
Blue Shoe Inc.																
Student 33	386	55	20	32	32	869.252	105.064	1245	130	50	118	69	78	56	60	46
Student 34	418	60	60	54	54	869.252	105.064	1848	170	65	118	69	70	50	60	46
Student 35	434	62	80	68	68	869.252	105.064	1192	178	68	128	75	70	50	58	45
Student 36	514	73	100	93	93	869.252	105.064	1023	240	92	118	69	90	64	66	51
Student 37	370	53	0	29	29	869.252	105.064	230	160	62	90	53	60	43	60	46
Student 38	400	57	40	46	46	869.252	105.064	1265	160	62	106	62	96	69	38	29
ICS																
Student 39	456	65	50	75	75	18.284	17.367	1002	168	65	120	71	90	64	78	60
Student 40	440	63	25	71	71	18.284	17.367	619	148	57	136	80	68	49	88	68
Student 41	476	68	100	86	86	18.284	17.367	945	194	75	114	67	80	57	88	68
Student 42	432	62	0	64	64	18.284	17.367	1093	146	56	116	68	90	64	80	62
Student 43	470	67	75	79	79	18.284	17.367	936	162	62	140	82	100	71	68	52
EAS																
Student 44	326	47	0	11	11	0	0	1399	100	38	98	58	60	43	68	52
Student 45	392	56	67	39	39	0	0	1372	138	53	98	58	70	50	86	66
Student 46	428	61	100	57	57	0	0	558	174	67	98	58	78	56	78	60
Student 47	326	47	0	11	11	0	0	418	130	50	88	52	50	36	58	45
Aspire																
Student 48	364	52	25	21	21	1934.72	2161.64	821	124	48	120	71	80	57	40	31
Student 49	396	57	75	43	43	1934.72	2161.64	928	120	46	120	71	80	57	76	58
Student 50	386	55	50	32	32	1934.72	2161.64	1273	104	40	114	67	88	63	80	62
Student 51	402	57	100	50	50	1934.72	2161.64	1658	116	45	120	71	100	71	66	51
Student 52	100	14	0	0	0	1934.72	2161.64	1400	40	15	20	12	20	14	20	15
Logic Solutions Inc																
Student 53	514	73	67	93	93	197.451	433.104	1022	170	65	120	71	106	76	118	91
Student 54	522	75	100	100	100	197.451	433.104	1615	178	68	130	76	116	83	98	75
Student 55	500	71	33	89	89	197.451	433.104	1144	182	70	120	71	90	64	108	83
Student 56	472	67	0	82	82	197.451	433.104	523	166	64	130	76	86	61	90	69
	Break down by section															

Table 4

Individual Scores Combined Course (continued)

	Section II. Q5 Market Leaders [pts]	Section II. Q5 Market Leaders [%]	Section III. Potential Competitive Threats [pts]	Section III. Potential Competitive Threats [%]	Section IV. Q6 Market Leader Predictions [pts]	Section IV. Q6 Market Leader Predictions [%]	Section V. Q5 Strengths and Weaknesses [pts]	Section V. Q5 Strengths and Weaknesses [%]	Section VI. Q6 Strength and Weaknesses Predictions [pts]	Section VI. Q6 Strength and Weaknesses Predictions [%]	Section VII. Q5 In-depth Knowledge of Operations [pts]	Section VII. Q5 In-depth Knowledge of Operations [%]
Pomegranate Computers												
Student 28	30	30	40	50	50	71	100	63	40	57	102	46
Student 29	70	70	40	50	50	71	120	75	70	100	78	35
Student 30	20	20	50	63	50	71	80	50	60	86	106	48
Student 31	40	40	50	63	50	71	70	44	50	71	0	0
Student 32	40	40	40	50	50	71	0	0	60	86	0	0
Blue Shoe Inc.												
Student 33	20	20	10	13	60	86	80	50	50	71	166	75
Student 34	80	80	40	50	50	71	60	38	50	71	138	63
Student 35	30	30	50	63	50	71	90	56	60	86	154	70
Student 36	60	60	50	63	60	86	110	69	60	86	174	79
Student 37	50	50	10	13	50	71	60	38	50	71	150	68
Student 38	60	60	40	50	60	86	40	25	50	71	150	68
ICS												
Student 39	50	50	30	38	60	86	120	75	40	57	156	71
Student 40	50	50	30	38	60	86	110	69	70	100	120	55
Student 41	40	40	40	50	60	86	130	81	70	100	136	62
Student 42	50	50	30	38	60	86	110	69	60	86	122	55
Student 43	50	50	30	38	70	100	120	75	50	71	150	68
EAS												
Student 44	80	80	20	25	60	86	70	44	40	57	56	25
Student 45	30	30	40	50	60	86	100	63	60	86	102	46
Student 46	60	60	30	38	60	86	70	44	60	86	148	67
Student 47	80	80	40	50	60	86	90	56	10	14	46	21
Aspire												
Student 48	20	20	10	13	60	86	110	69	40	57	124	56
Student 49	30	30	10	13	60	86	130	81	60	86	106	48
Student 50	40	40	10	13	60	86	130	81	50	71	96	44
Student 51	50	50	20	25	60	86	120	75	50	71	102	46
Student 52	40	40	10	13	50	71	0	0	0	0	0	0
Logic Solutions Inc												
Student 53	80	80	40	50	70	100	110	69	60	86	154	70
Student 54	70	70	30	38	70	100	110	69	70	100	172	78
Student 55	60	60	30	38	70	100	130	81	60	86	150	68
Student 56	40	40	30	38	50	71	140	88	70	100	142	65

Table 5 Team Scores Marketing Management T

Instructor Summary AOLA Report

Team Summary | Individual Summary | Report score as

points & percent points percent **Rockhurst_Puetz_Sp08**

	Blue	Green Shadow	Red Luminosity	Goldtek Systems	White
Total [pts]	289	325	380	340	456
Total [%]	41	46	54	49	65
Game Percentile [%]	0	25	75	50	100
Course Percentile [%]	0	25	75	50	100
Quarter 8 Balanced Scorecard	1.777	0	46.103	1.95	94.841
Quarter 8 Cumulative Balanced Scorecard	1.63	0	88.202	2.987	126.474
Time Spent Through Quarter 8 [min]	985	2092	3448	1599	2298
Break down by category					
Marketing [pts]	82	122	119	112	156
Marketing [%]	32	47	46	43	60
Sales Management [pts]	73	66	96	76	119
Sales Management [%]	43	39	56	45	70
Finance and Accounting [pts]	58	61	82	76	79
Finance and Accounting [%]	41	44	59	54	56
Manufacturing [pts]	77	75	83	76	103
Manufacturing [%]	59	58	64	58	79
Break down by section					
Section II. Q5 Market Leaders [pts]	28	36	54	46	43
Section II. Q5 Market Leaders [%]	28	36	54	46	43
Section III. Potential Competitive Threats [pts]	25	20	14	32	48
Section III. Potential Competitive Threats [%]	31	25	18	40	59
Section IV. Q6 Market Leader Predictions [pts]	23	28	30	22	48
Section IV. Q6 Market Leader Predictions [%]	32	40	43	31	68
Section V. Q5 Strengths and Weaknesses [pts]	83	88	114	90	140
Section V. Q5 Strengths and Weaknesses [%]	52	55	71	56	88
Section VI. Q6 Strength and Weaknesses Predictions [pts]	20	34	52	30	68
Section VI. Q6 Strength and Weaknesses Predictions [%]	29	49	74	43	96
Section VII. Q5 In-depth Knowledge of Operations [pts]	112	119	116	120	111
Section VII. Q5 In-depth Knowledge of Operations [%]	51	54	53	54	50
Strategy - Tactics Alignment					
Overall [%]	76	69	67	80	71
Marketing Tactics [%]	75	68	68	80	70
Sales Management Tactics [%]	92	67	60	100	83
Finance and Accounting Tactics [%]	63	75	70	60	75
Manufacturing Tactics [%]	75	65	70	80	56

Table 6

Individual Scores Marketing Management

									Break down by category							
	Total [pts]	*Total [%]*	*Team Percentile [%]*	*Game Percentile [%]*	*Course Percentile [%]*	*Quarter 8 Balanced Scorecard*	*Quarter 8 Cumulative Balanced Scorecard*	*Time Spent Through Quarter 8 [min]*	Marketing [pts]	Marketing [%]	Sales Management [pts]	Sales Management [%]	Finance and Accounting [pts]	Finance and Accounting [%]	Manufacturing [pts]
Blue															
Student 57	280	40	67	14	14	1.777	1.63	106	90	35	60	35	70	50	60
Student 58	278	40	33	9	9	1.777	1.63	164	88	34	60	35	50	36	80
Student 59	332	47	100	41	41	1.777	1.63	189	100	38	80	47	62	44	90
Student 60	266	38	0	0	0	1.777	1.63	526	50	19	90	53	50	36	76
Student 61															
Student 62	348	50	75	50	50	0	0	915	128	49	60	35	80	57	80
Student 63	288	41	25	18	18	0	0	115	120	46	68	40	40	29	60
Student 64	266	38	0	0	0	0	0	164	100	38	58	34	50	36	58
Student 65	324	46	50	36	36	0	0	445	108	42	58	34	68	49	90
Student 66	400	57	100	73	73	0	0	453	156	60	88	52	68	49	88
Red Luminosity															
Student 67	416	59	75	82	82	46.103	88.202	399	130	50	118	69	90	64	78
Student 68	404	58	50	77	77	46.103	88.202	487	128	49	86	51	90	64	100
Student 69	314	45	0	32	32	46.103	88.202	431	104	40	80	47	60	43	70
Student 70	338	48	25	45	45	46.103	88.202	589	88	34	90	53	70	50	90
Student 71	426	61	100	86	86	46.103	88.202	1542	144	55	106	62	100	71	76
Goldtek Systems															
Student 72	290	41	0	23	23	1.95	2.987	313	90	35	60	35	60	43	80
Student 73	350	50	50	55	55	1.95	2.987	342	120	46	90	53	70	50	70
Student 74	390	56	100	68	68	1.95	2.987	259	110	42	110	65	100	71	70
Student 75	368	53	75	59	59	1.95	2.987	275	118	45	80	47	70	50	100
Student 76	300	43	25	27	27	1.95	2.987	78	120	46	40	24	80	57	60
Student 77															
Student 78	440	63	33	91	91	94.841	126.474	778	150	58	110	65	70	50	110
Student 79	492	70	67	95	95	94.841	126.474	558	168	65	134	79	80	57	110
Student 80	504	72	100	100	100	94.841	126.474	246	178	68	110	65	96	69	120
Student 81	388	55	0	64	64	94.841	126.474	285	128	49	120	71	70	50	70

Table 6

Individual Scores Marketing Management (continued)

	Break down by section												
	Manufacturing [%]	Section II. Q5 Market Leaders [pts]	Section II. Q5 Market Leaders [%]	Section III. Potential Competitive Threats [pts]	Section III. Potential Competitive Threats [%]	Section IV. Q6 Market Leader Predictions [pts]	Section IV. Q6 Market Leader Predictions [%]	Section V. Q5 Strengths and Weaknesses [pts]	Section V. Q5 Strengths and Weaknesses [%]	Section VI. Q6 Strength and Weaknesses Predictions [pts]	Section VI. Q6 Strength and Weaknesses Predictions [%]	Section VII. Q5 In-depth Knowledge of Operations [pts]	Section VII. Q5 In-depth Knowledge of Operations [%]
Blue													
Student 57	46	40	40	20	25	20	29	50	31	10	14	140	64
Student 58	62	20	20	30	38	20	29	100	63	20	29	88	40
Student 59	69	30	30	40	50	40	57	70	44	40	57	112	51
Student 60	58	20	20	10	13	10	14	110	69	10	14	106	48
Student 61													
Student 62	62	50	50	20	25	20	29	90	56	40	57	128	58
Student 63	46	20	20	20	25	40	57	90	56	40	57	78	35
Student 64	45	40	40	20	25	10	14	80	50	20	29	96	44
Student 65	69	20	20	30	38	20	29	80	50	40	57	134	61
Student 66	68	50	50	10	13	50	71	100	63	30	43	160	73
Red Luminosity													
Student 67	60	50	50	20	25	40	57	110	69	60	86	136	62
Student 68	77	70	70	10	13	20	29	130	81	60	86	114	52
Student 69	54	40	40	10	13	40	57	110	69	40	57	74	34
Student 70	69	50	50	10	13	10	14	120	75	60	86	88	40
Student 71	58	60	60	20	25	40	57	100	63	40	57	166	75
Goldtek Systems													
Student 72	62	40	40	20	25	30	43	80	50	20	29	100	45
Student 73	54	40	40	30	38	10	14	110	69	40	57	120	55
Student 74	54	50	50	60	75	30	43	90	56	40	57	120	55
Student 75	77	30	30	30	38	20	29	120	75	20	29	148	67
Student 76	46	70	70	20	25	20	29	50	31	30	43	110	50
Student 77													
Student 78	85	50	50	50	63	50	71	140	88	70	100	80	36
Student 79	85	50	50	50	63	50	71	140	88	70	100	132	60
Student 80	92	40	40	50	63	50	71	150	94	70	100	144	65
Student 81	54	30	30	40	50	40	57	130	81	60	86	88	40