



ASSURANCE OF EARNING RESULTS SYNOPSIS

FEBRUARY 2017

OVERVIEW

A wealth of empirical research has supported the effectiveness of simulation-based learning and assessment.¹ The primary value of simulation-based assessment is that it provides a situation that elicits and measures a student's acquired knowledge and the capacity to apply this knowledge (i.e., both knowing and doing).

California State University – East Bay currently uses Capsim's Capstone® simulation for instructional purposes followed by Comp-XM® for learning assessment purposes. The Capstone simulation is implemented using student teams to simulate a top management team of a company. Comp-XM is an individual assessment whereby students run their own companies and “compete” against other computer-run companies. In brief, there are five rounds in the Comp-XM assessment. The first four rounds require making simulation decisions and answering sets of test questions (called “board queries”). The final round requires only answering test questions. The overall assessment philosophy of Comp-XM emphasizes “breadth over depth” in measuring cross-functional knowledge and skill. To boost assessment depth, schools often integrate Comp-XM results with program-specific, course-embedded measures such as final exams, essays, term papers, and so forth.

REPORT STRUCTURE AND CONTENT

This assurance of learning (AoL) report consists of five sections. These are briefly described below. Note that more detailed results are available for download from the online reporting tool associated with Comp-XM.

Section 1: Crosswalk between Specified CSU-EB Learning Goals and Comp-XM Measures

This section shows how each learning goal and objective is operationalized in Comp-XM. Separate crosswalks are shown for the MBA program and the Undergraduate program.

Section 2: Cumulative Aggregate-level AoL Results

This section provides aggregated statistics that summarize scores across the various learning goals measured in Comp-XM. These results are shown across the entire assessment period for the MBA and Undergraduate programs.

Section 3: Annual Aggregate-level AoL Results

This section provides aggregated statistics that summarize scores across the various learning goals measured in Comp-XM. These results are shown for each assessment year for the MBA and Undergraduate programs.

Section 4: Potential Areas of Intervention Focus

This section indicates topics that may warrant attention. For example, these areas might suggest future interventions to improve mastery and subsequent AoL results. To improve efficiency and comprehension, emphasis is given to the topics assessed by the test questions in Comp-XM when identifying potential areas for improvement.

Section 5: Common Diagnostic Questions

This section provides a list of guiding questions that can be discussed when interpreting AoL results for “closing the loop.” These questions are intended to be diagnostic in nature and to facilitate the choice of subsequent curricular or co-curricular interventions.

¹ Vogel, J. J., Vogel, D. S., Cannon-Bowers, J., Bowers, C. A., Muse, K., & Wright, M. (2006). Computer gaming and interactive simulations for learning: A meta-analysis. *Journal of Educational Computing Research*, 34(3), 229-243. Sitzmann, T. (2011). A meta-analytic examination of the instructional effectiveness of computer-based simulation games. *Personnel Psychology*, 64, 489–528. Wouters, P., Van Nimwegen, C., Van Oostendorp, H., & Van Der Spek, E. D. (2013). A meta-analysis of the cognitive and motivational effects of serious games. *Journal of Educational Psychology*, 105, 249-265.

SECTION 1: CROSSWALK BETWEEN SPECIFIED CSUEB LEARNING G

Undergraduate Program Crosswalk

CSUEB Learning Goals	Learning Objectives	Simulation Decisions ("Balanced Scorecard")	Test Questions ("Board Query") and Associated Topics
Goal 1: Students who graduate will be knowledgeable and integrative in their approach to business management.	1A: Students who graduate will recognize and integrate foundation knowledge across functional areas.	Four Balanced Scorecard Quadrants (Financial; Internal Process; Customer; Learning & Growth)	<p>35 Items</p> <p>(A-16: Break Even Analysis; A-279: Understanding the Accounting Equation; A-286: Revenue Recognition; A-290: Identifying Fixed vs. Variable Costs; A-320: Calculating Book Value; A-362: Identifying Change in Equity; A-364: Interpreting the Cash Flow Statement; A-389: Understanding Item Carrying Values on the Balance Sheet; A-94: Understanding the Accounting Equation; F-115: DuPont Analysis; F-260: Calculating Dividend Yield; F-261: Effects of Change in Depreciation Expense on Financial Statements; F-267: Calculating Simple Ratios; F-274: Calculating Ratios from the Annual Report; F-301: Calculating Stock Repurchase; F-347: Cash Management; F-358: Effect of Investment Decisions; F-41: Retirement of Debt; M-308: Identifying Marketing Efficiency; M-334: Forecasting; M-343: Creating Marketing Budgets; M-346: Identifying Competitors Using the Four P's; M-349: Demand Analysis M-354: Identifying Price Elasticity; M-355: Market Sizing; O-322: Operational Impact of Unit Margin; P-258: Capacity Analysis; P-309: Determining Acceptable Inventory Levels; P-328: Cost of Right-Sizing Plant; P-682: Plant Utilization; H-319: Calculating Productivity Impact; H-323: Calculating Recruiting Costs; H-324: Calculating Training Costs; H-326: Calculating Separation Costs; H-329: Calculating Future Labor Wages)</p>
	1B: Students who graduate will apply critical thinking skills to solve business problems.	Four Balanced Scorecard Quadrants (Financial; Internal Process; Customer; Learning & Growth)	<p>11 Items</p> <p>(A-16: Break Even Analysis; F-347: Cash Management; F-358: Effect of Investment Decisions; M-349: Demand Analysis; O-322: Operational Impact of Unit Margin; P-258: Capacity Analysis; S-363: Identifying Tactics for Building Competitive Advantage; S-668: Developing Mission/Vision Statements; S-671: Strategic Analysis; S-674: Competitive Analysis; S-73: Identifying Strategies)</p>

SECTION2: CUMULATIVE A

Undergraduate Program Aggregate AoL Results (Cumulative)

Learning Objective s: Students who graduate will...
1A: ...recognize and integrate foundation knowledge across functional areas.
1B: ... apply critical thinking skills to solve business problems.

Cumulative	Goal 1A	Goal 1B
Mean		

SECTION3:

SECTION

Undergraduate Program

Learning Objective s: Students who graduate will...
1A: ...recognize and integrate foundation knowledge across functional areas. (35 items total)
1B: ... apply critical thinking skills to solve business problems. (11 items total)

Leaning Goal/Objective	Test Question Label and Topic	Potential Concern
1A		

SECTION 5: COMMON DIAGNOSTIC QUESTIONS

Below are several common questions that can be discussed when interpreting AoL results for “closing the

APPENDIX A: QUESTION KEY FOR "POTENTIAL CONCERN" ITEMS

The question key below shows only items that were identified in Section 4 as "potential concerns." These items may suggest areas for future interventions to improve mastery and subsequent AoL results. Correct responses are marked with "X."

To ensure test security, please do not distribute this key.

F-115: DuPont Analysis

This year Baldwin achieved an ROE of 43.4%. Suppose the Board of Directors of Baldwin mandates that management take measures to increase financial Leverage (=Assets/Equity) next year. Assuming Sales, Profits, and Assets remain the same next year, what effect would you expect this new Leverage policy will have on Baldwin ROE?

- Baldwin ROE will decrease.
- Baldwin ROE will increase.
- Baldwin ROE will remain the same.

F-260: Calculating Dividend Yield

Currently Chester is paying a dividend of \$3.65 (per share). If this dividend were raised by \$3.64, given its current stock price what would be the Dividend Yield?

- 8.7% [current yield]
- \$7.29 [dividends + \$3.64]
- \$3.64 [\$3.64]
- 17.5% [new yield]

F-267: Calculating Simple Ratios

What is the Working Capital of Chester?

- \$33,670 [current assets - current liabilities]
- \$14,924 [current assets - total equity]
- \$33,670 [current liabilities - current assets]
- \$48,594 [total equity - current liabilities]

F-274: Calculating Ratios from the Annual Report

Chester has a leverage of 1.91

This means that:

.3(a) 12.1(r) 10.3(agc) 0 Ts 112(-) -0.009 Tw -7.Bo) 3.5(h) 2.3(1) 5.8(.r) 10.3(ag) -6.1(e) 12.1(o) -5.1(f) 73(1) 5.8(i) 6.1(t) (e) 12c0.8

M-354: Identifying Price Elasticity

In order to sell a product at a profit the product must be priced higher than the total of what it costs you to build the unit, plus period expenses, and plus overhead. At the end of last year the broad cost leader Chester had an Elite product Cozy. Use the Inquirer's Production Analysis to find Cozy's production cost (labor +

O-322: Operational Impact of Unit Margin

Of Chester Corporation's products, which earned the highest Net Margin as a percentage of its sales?

- Cell [Product name with the highest net margin percentage]
- Cone [Other product name]
- Cat [Other product name]
- Creak [Other product name]

H-