BSBA AY 2016-2017 Assessment

Phase 1: Assessment Plan Outlined

Program Goal 3 – Demonstrate Knowledge of Fundamental Business Domain Concepts

Learning Outcome assessed:

**Learning Outcome 06: Accounting**

Students will use accounting concepts and principles in creating and analyzing financial statements of organizations.

Assessment Method:

Multiple choice questions

Targeted performance, based on rubrics:

80% of students demonstrate Excellent or Good level of achievement for every topic;

Evaluation Process:

LO6 was assessed in all ten sections of BUS 201 proposed in the Fall of 2016. Professors Comiran, Fedyk, Ha, Khan, Roehl, and Wells performed the assessment.

- Assessment included three groups of questions in order to evaluate three topics outlined in the rubric below. Each of three groups contained four multiple choice questions. Therefore, every student was given total of 12 multiple choice questions.

- Out of 12 questions, 4 questions were quantitative, and 8 questions were qualitative (theoretical and conceptual).

- The same questions were used for all ten sections; all questions were part of a graded exam.

- In total, 341 students answered twelve multiple-choice questions – four related to the main accounting equation, four related to the principles of double-entry accounting, and four related to the main financial statements.

- Two types of analyses were performed:
  1) A simple frequency analysis of the number of correct answers (by questions and by trait) was performed. Such analysis enables us to see an aggregated level of knowledge for each trait outlined in the rubric, and to identify the most problematic areas related to LO 6. Basic descriptive statistics were run on the scores for each of the questions and for each of the traits representing the learning outcome 6;
  2) In order to assess the percentage of students meeting or exceeding expectations, additional analysis was done on by-student level. Basic descriptive statistics were run on the scores for each of the students. Such analysis enables us to estimate the overall students’ performance related to the learnings outcome 6.
Rubric for LO6:

<table>
<thead>
<tr>
<th>Topics</th>
<th>Level of Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Identify the main accounting equation –</strong></td>
<td></td>
</tr>
<tr>
<td>Tested with 4 multiple choice questions</td>
<td></td>
</tr>
<tr>
<td>All questions are answered correctly (correct answers are 100%)</td>
<td>All but one question are answered correctly (correct answers are 75%)</td>
</tr>
<tr>
<td><strong>Apply principles of the double-entry accounting system –</strong></td>
<td></td>
</tr>
<tr>
<td>Tested with 4 multiple choice questions</td>
<td></td>
</tr>
<tr>
<td>All questions are answered correctly (correct answers are 100%)</td>
<td>All but one question are answered correctly (correct answers are 75%)</td>
</tr>
<tr>
<td><strong>Recognize two main financial statements: Income Statement and Balance Sheet –</strong></td>
<td></td>
</tr>
<tr>
<td>Tested with 4 multiple choice questions</td>
<td></td>
</tr>
<tr>
<td>All questions are answered correctly (correct answers are 100%)</td>
<td>All but one question are answered correctly (correct answers are 75%)</td>
</tr>
</tbody>
</table>

Course where learning outcome was assessed:

BSBA, BUS 201 Principles of Financial Accounting, sections 1,2,3,4,5,6,7,8,9 &10

Evaluator(s):

Dr. Tatiana Fedyk (note, no special evaluation was required, as assessment is based on a set of multiple choice questions)

Phase 2: Results Assessment and Planned Action

BUS 201 Exam Results

Part 1. By question analysis: 12 multiple choice questions, 341 students participated; * denotes quantitative questions

<table>
<thead>
<tr>
<th>Questions</th>
<th>Q1</th>
<th>Q2*</th>
<th>Q3</th>
<th>Q4</th>
<th>Q5</th>
<th>Q6</th>
<th>Q7</th>
<th>Q8</th>
<th>Q9</th>
<th>Q10*</th>
<th>Q11*</th>
<th>Q12*</th>
</tr>
</thead>
<tbody>
<tr>
<td>N correct</td>
<td>333</td>
<td>309</td>
<td>335</td>
<td>317</td>
<td>278</td>
<td>318</td>
<td>301</td>
<td>259</td>
<td>319</td>
<td>330</td>
<td>324</td>
<td>311</td>
</tr>
<tr>
<td>% correct</td>
<td>98%</td>
<td>91%</td>
<td>98%</td>
<td>93%</td>
<td>82%</td>
<td>93%</td>
<td>88%</td>
<td>76%</td>
<td>94%</td>
<td>97%</td>
<td>95%</td>
<td>91%</td>
</tr>
</tbody>
</table>
Part 2: By-Topic analysis (3 topics from the rubric)

<table>
<thead>
<tr>
<th>Topics</th>
<th>Main accounting equation</th>
<th>Double-entry accounting system</th>
<th>Main financial statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questions</td>
<td>Q1, Q2, Q3, &amp; Q4</td>
<td>Q5, Q6, Q7, &amp; Q8</td>
<td>Q9, Q10, Q11, &amp; Q12</td>
</tr>
<tr>
<td>% correct</td>
<td>95%</td>
<td>85%</td>
<td>94%</td>
</tr>
</tbody>
</table>

Part 3: By-Student analysis: number of students achieving targets

<table>
<thead>
<tr>
<th>Topic</th>
<th>% of student with “excellent” level of performance (100%)</th>
<th>% of student with “good” level of performance (75%)</th>
<th>% of student with “poor” level of performance (≤50%)</th>
<th>% Students with Excellent or Good performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic 1: “The main accounting equation”</td>
<td>86%</td>
<td>10%</td>
<td>4%</td>
<td>96%</td>
</tr>
<tr>
<td>Topic 2: “Double-entry accounting system”</td>
<td>57%</td>
<td>29%</td>
<td>14%</td>
<td>86%</td>
</tr>
<tr>
<td>Topic 3: “Main financial statements”</td>
<td>84%</td>
<td>10%</td>
<td>6%</td>
<td>94%</td>
</tr>
</tbody>
</table>
What did we learn?

• Students had very strong knowledge about the main accounting equation and main financial statements, but their knowledge about double-entry accounting system is slightly weaker. This is not a surprise as “debit-credit” material is always among the most challenging topics.

• Students did well on all quantitative questions (Q2; Q10, Q11, and Q12).

• Students did well on main conceptual questions (Q1 and Q9).

• Most problematic were Q5 – details about debit-credit rules for specific accounts; and Q8 – related to a specific journal entry. Q8 has a trick (additional words were used to distract attention from the main account). Therefore, we can conclude that while students understand well main concepts and principles, some of students are lacking ability to apply those concepts to real problems.

Suggested Action:

Based on these findings, we recommend the following actions:

Improvements to AoL process/methods:
1. From interaction with finance faculty, we learned that one item is missing for the Topic 3 “Main Financial Statements”. The missing statement is Statement of Cash Flow, Indirect Method. This item will be added to the improved rubric table, and will be tested during next cycle.
2. If possible, conduct a second set of questions at the end of the semester to have two sets of data (intermediated and end-of-semester) for more in-depth analysis.

Improvements to course/curriculum:
3. Reiterate debit-credit accounting system rules throughout the course; do not limit covering this topic to the first three chapters.
4. During assessments, use straightforward and focused questions and avoid questions with tricks as the main purpose is to test students’ fundamental knowledge, and not necessarily their ability to catch small details.

Phase 3: Closing the Loop

To be filed the year after the results assessment.
Amendment: multiple choice questions used for LO6 assessment

QUESTIONS related to “Identify main accounting equation”:

1) The accounting equation can be stated as:
   A) Stockholders’ Equity = Liabilities.
   B) Assets = Liabilities+ Stockholders’ Equity.
   C) Assets = Liabilities - Stockholders' Equity.
   D) Assets = Liabilities+ Revenues-Expenses.
   Correct Answer: B

2) At the end of the current accounting period, account balances were as follows: Cash, $15,000; Accounts Receivable, $20,000; Common Stock, $8,000; Retained Earnings, $14,000. Liabilities for the period were:
   A) $13,000.
   B) $20,000.
   C) $27,000.
   D) $57,000.
   Correct Answer: A

3) Examples of liabilities include:
   A) accounts payable and accounts receivable.
   B) accounts payable and land.
   C) investments and owners’ equity.
   D) accounts payable and long-term debt.
   Correct Answer: D

4) The assets of a company:
   A) must equal the liabilities of the company.
   B) include property, plant, and equipment and common stock.
   C) represent economic resources that are expected to produce a future benefit.
   D) include merchandise inventory and accounts payable.
   Correct Answer: C

QUESTIONS related to “Apply principles of double-entry accounting system”:

5) An important rule of debits and credits is:
   A) credits increase a liability account.
   B) debits decrease an asset account
   C) revenues and expenses are increased by a debit.
   D) expenses are increased by a credit.
   Correct Answer: A

6) A company received cash and issued stock to a new stockholder. In recording this transaction:
   A) cash would be debited and common stock would be credited.
   B) cash would be credited and common stock would be debited.
   C) cash would be debited and retained earnings would be credited.
   D) cash would be credited and retained earnings would be debited.
   Correct Answer: A

7) An account will have a debit balance if:
   A) the amount of the credits exceeds the amount of the debits.
   B) the amount of the debits exceeds the amount of the credits.
   C) the account has more debit entries than credit entries.
   D) it is a liability account.
8) ABC Company needed money to purchase a new building. They borrowed $20,000 from the Richest Bank and signed a note promising to pay the amount back in three months. The entry to record the loan is:

<table>
<thead>
<tr>
<th></th>
<th>A)</th>
<th>B)</th>
<th>C)</th>
<th>D)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cash</td>
<td>Building</td>
<td>Note Payable</td>
<td>Building</td>
</tr>
<tr>
<td></td>
<td>20,000</td>
<td>20,000</td>
<td>20,000</td>
<td>20,000</td>
</tr>
<tr>
<td></td>
<td>Note Payable</td>
<td>Cash</td>
<td>Cash</td>
<td>Notes Payable</td>
</tr>
<tr>
<td></td>
<td>20,000</td>
<td>20,000</td>
<td>20,000</td>
<td>20,000</td>
</tr>
</tbody>
</table>

Correct Answer: A

Questions related to “prepare two main financial statements: Income Statement and Balance Sheet”:

9) Net income is computed as:
A) revenues - expenses - dividends.
B) revenues + expenses.
C) revenues - expenses.
D) revenues - expenses – accounts receivable.
Correct Answer: C

Questions 10-12 are related to Exhibit 1:

ABC Company had the following accounts and balances at the end of the year:

| Accounts Payable | $12,000 | Equipment | $50,000 |
| Cash            | $74,000 | Inventory | $25,000 |
| Common Stock    | $21,000 | Long-Term Debt | $33,000 |
| Wage expenses   | $85,000 | Revenues   | $200,000 |
| Dividends       | $8,000  | Rent Expense | $24,000 |

10) Refer to Exhibit 1. Total assets for ABC Company at the end of the year were:
A) $74,000.
B) $99,000.
C) $141,000.
D) $149,000.
Correct Answer: D

11) Refer to Exhibit 1. Total liabilities for ABC Company at the end of the year were:
A) $12,000.
B) $17,000.
C) $33,000.
D) $45,000.
Correct Answer: D

12) Refer to Exhibit 1. Net income for ABC Company for the year was:
A) $83,000.
B) $91,000.
C) $115,000.
D) $176,000.
Correct Answer: B