EXTENDED ABSTRACT

INTRODUCTION

Assurance of learning is an important aspect of the educational experience, especially as it relates to satisfying accreditation requirements such as for AACSB [1]. One of the challenges is developing assessment instruments for program level learning goals that can be effectively embedded into undergraduate business core courses while aligning the assessment with the course learning objectives. Recent research suggests that such embedded approaches to assessment might help to mitigate faculty resistance to program-level assessment initiatives which they may lack necessary knowledge of, and perceive as demanding significant time commitment [7].

This paper describes the development and pilot testing of two course-embedded instruments to assess written communication competency of undergraduate business majors at a large public university. This assessment was an integral part of a college-wide Assurance of Learning (AOL) system to determine student proficiency and to ensure that students possess the desired level of competency upon the completion of business core courses.

Two different assignments adaptive to the specific course contents (marketing and human resource management), were tested in two different courses, using a common scoring rubric across a set of previously established assessment criteria. Both instruments were designed in a way that they can be seamlessly implemented by the course instructors at the delivery of key course contents. A total of 143 students participated in the assessment activities. Results show that while both instruments assessed students’ written communication competency with consistent data across independent raters, there are insights to be gained from the design and implementation of the adaptive assessment instruments to benefit future innovative program-level business education outcomes assessment.

DEVELOPMENT OF ASSESSMENT INSTRUMENTS

Communication skills are consistently considered to be important for business graduates, as evidenced by surveys of employers as well as academics [e.g., 5]. It is also one of the most popular program level learning goals adopted by AACSB accredited business schools [2]. This is reinforced by the fact that a recent survey of Deans at AACSB accredited business schools found that communication was the most assessed skill [11] in business schools’ Assurance of Learning (AOL) process. In light of the ubiquity
of assessing communication skills for assurance of business program learning goals, a course-embedded approach is adopted in an attempt to develop and pilot-test a set of adaptive assessment instruments for written communication competency of undergraduate business majors at a large public university.

Course-embedded measures that assess student learning outcomes (SLOs) at the course level have been widely adopted for assessing program level learning goals. Assurance of learning results at the course level can be used to support program level assessment and can provide evidence regarding the contribution made by a course to a related learning goal and a measurable objective of the program [3]. AACSB specifically identifies course-embedded measures as one of the approaches available for assessment [2]. Steps involved in implementing course-embedded assessments are detailed in [6] and [8]. Various studies have reported on experiences with course-embedded measures, for example, with multiple choice questions to assess quantitative skills in a finance course [10] and for evaluating cross-functional integration in an accounting course [3].

With respect to written communication competency, different approaches have been used to incorporate written communication in the curriculum and course content. Writing-across-the-curriculum programs have met with mixed success [9]. The use of writing workshops as an additional resource to enhance written communication skills is described in [4]. In a similar vein, communication modules designed to be taken concurrently with the core courses is described in [12].

Aligning both program-level learning goals and course-level learning objectives, two different assignments were designed and implemented in two required undergraduate business core courses – a Principles of Management course, and a Principles of Marketing Management course.

**Principles of Management writing assignment:**

A writing assignment titled “Manager who Rocks!” was given to students with two objectives:
1. To stimulate individual reflection about important managerial characteristics, behaviors, and activities. This was expected to provide the basis for building upcoming class discussions about how to manage effectively.
2. To assess students’ written communication skills (a program level learning goal); determine how students as a whole were performing with respect to written communication competency criteria specified at the program level, and identify areas for improvement.

Students were required to write a 2-page essay about individual characteristics, behaviors, and activities of an outstanding manager. To support their arguments, they could include examples from real life, individual experience, or any other sources.

**Principles of Marketing Management writing assignment:**

The writing assignment in the Principles of Marketing Management course related to the university’s core values (e.g., academic quality, teacher-scholars, environmental sustainability, etc.). As with the assignment in the Principles of Management course, there were two objectives:

1. To have students reflect on their educational experience at the university and how it relates to the university’s core values. This would influence the discussion of strategic planning in marketing.
2. To assess students’ written communication skills (identical to the second objective for the Principles of Management assignment identified above).
Students were asked to review the university’s core values and write a two page narrative discussing how their educational experience (e.g., in a class or through an extra-curricular activity on campus or in the community) reflects one or more core values of the university. More specifically, they had to describe the context of their university experience and provide rationale as to how this experience exemplifies the university’s core values.

For both courses, a common rubric was used to score the submissions on three criteria – basic grammar, structure, and content. Each criterion was scored on a scale from 1 (worst) to 4 (best). The rubric had been previously adopted at the college level, and was provided to the students in advance. The assessment assignments were implemented as Blackboard assignments, where students could upload their essays directly to Blackboard, and get graded for course credit. Each essay was scored by two raters – the course instructor, and a second rater.

RESULTS

A total of 143 students participated in the assessment. The college’s benchmark is that at least 70% of students should receive a score of at least 3 (on a 4 point scale), using the established rubric. The results for each course, as well as the overall results are presented below.

Principles of Management writing assignment:

Seventy-five students were assessed in the Principles of Management course. Table 1 shows the summary of results based on the average scores (across both raters) for each essay. The mean and median scores are reported, along with the percentage of students meeting or exceeding a score of 3.

Table 1

<table>
<thead>
<tr>
<th>Average ratings: # of students = 75</th>
<th>Basic Grammar</th>
<th>Structure</th>
<th>Content</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean score</td>
<td>3.37</td>
<td>3.65</td>
<td>3.41</td>
<td>3.48</td>
</tr>
<tr>
<td>Median score</td>
<td>3.5</td>
<td>3.5</td>
<td>3.5</td>
<td>3.5</td>
</tr>
<tr>
<td>% of students scoring '3' or higher</td>
<td>82.7%</td>
<td>97.3%</td>
<td>89.3%</td>
<td>94.7%</td>
</tr>
</tbody>
</table>

Table 1 shows that the mean and median scores for each criterion, as well as the overall mean and median scores were at least 3. Further, at least 70% of the students received a score of 3 or higher. Students scored highest on structure and lowest on basic grammar.

Principles of Marketing Management writing assignment:

Sixty-eight students were assessed in the Principles of Marketing Management course. Table 2 shows the summary of results based on the average scores (across both raters) for each essay.
Table 2

Average ratings: # of students = 68

<table>
<thead>
<tr>
<th>Basic Grammar</th>
<th>Structure</th>
<th>Content</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean score</td>
<td>3.03</td>
<td>3.17</td>
<td>3.33</td>
</tr>
<tr>
<td>Median score</td>
<td>3</td>
<td>3</td>
<td>3.5</td>
</tr>
</tbody>
</table>

| % of students scoring '3' or higher | 69.1% | 73.5% | 86.8% | 73.5% |

Table 2 shows that the mean and median scores for each criterion, as well as the overall mean and median scores were at least 3. However, while at least 70% of the students met the college’s threshold for structure and content, the benchmark was not met for basic grammar.

Finally, Table 3 shows the aggregate results for both courses.

Table 3

Average ratings: # of students = 143

<table>
<thead>
<tr>
<th>Basic Grammar</th>
<th>Structure</th>
<th>Content</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean score</td>
<td>3.21</td>
<td>3.42</td>
<td>3.37</td>
</tr>
<tr>
<td>Median score</td>
<td>3.25</td>
<td>3.5</td>
<td>3.5</td>
</tr>
</tbody>
</table>

| % of students scoring '3' or higher | 76.2% | 86.0% | 88.1% | 84.6% |

Table 3 shows that when considered at the program level across both courses, the college’s benchmark of at least 70% of students earning a score of at least 3, is met for each criterion, as well as overall.

CONCLUSIONS

Both instruments implemented in the pilot testing appear to be well received by the instructors and students. Neither the instructors nor students expressed any concerns about the assessment instruments being a hindrance or distraction to the learning activities in their respective courses. The assessment results appear to reflect students’ writing competency based on the pre-established rubrics, and hold promise to be further implemented in the subsequent AOL cycles in core business courses. However, an interesting observation is that scores were higher in the Principles of Management course. This may be due to the fact that the assignment was directly related to the course content and students were allowed to use external sources. On the other hand, in the Principles of Marketing Management course, students were required to reflect on their own experiences and couldn’t rely on external sources, which may have made the assignment more challenging.
Some insights can be gained from the development and implementation of the two adaptive assessment instruments on written communication competency. These include: 1) Aligning program-level objectives and student-learning outcomes at the course level; 2) Adapting the mechanics of the instrument design to students’ expected competency level in the program; 3) Actively involving faculty in instrument design and implementation; 4) Leveraging learning management technology (i.e. Blackboard) to embed assessment instruments in students’ course experience, and 5) Developing a culture of assessment through broad faculty participation and communication of assessment results to key stakeholders on a regular basis. These insights may contribute to peer AACSB member schools’ further explorations toward a more innovative, intentional, adaptive, and sustainable AOL practice in assessing program-level learning goals.

Keywords: Business Education, Adaptive Assessment Instruments, Written Communication Competency, AACSB

REFERENCES