

The Vanishing Tuition Quandary: A Responsibility Accounting Case Study

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Abstract

Hidden Gem University is evaluating the profitability of each of its degree programs. The MBA program is growing but the operating income on the performance report is negative, which makes the program a target for possible discontinuance in the interest of the financial health of the University. In this case, students will evaluate the given report and various costs allocated to the MBA program to prepare an updated performance report. Accounting concepts such as cost behavior, flexible budgets, and responsibility accounting are integrated into this case study to encourage students to critically think about how these concepts interconnect and apply in a real-world setting for strategic decision making.

Keywords: managerial accounting, flexible budgets, responsibility accounting, cost behavior, Excel project, written communication

The Meeting

“Wait a minute, did you just say that our MBA program is losing money? How can that be? Enrollment is up by 20%. All our classes are full, and we added sections taught by adjunct lecturers rather than adding full-time faculty positions to accommodate the increase in demand.” Chris, the Dean of the College of Business was speechless during the meeting with the University finance committee. For the future financial health of the University, the finance committee was evaluating each program and planning to make a recommendation to discontinue the “unprofitable” MBA program.

Jamie, the finance committee chair, began the meeting by going over performance reports for each of the degree programs offered in the most recent academic year (see Exhibit A for the MBA program report). Jamie explained the net revenues and expenses reported and also the allocation of support costs to each program. Chris disagreed with the way the performance reports were calculated and the expectation that degree programs were to be held accountable for costs beyond their control. Chris has enlisted your help as the accounting professional for the College of Business, to try to explain the concept of flexible budgets, responsibility accounting, and the importance of analysis to better understand the merit of the MBA program and the value it contributes to the future growth of the university.

Background Information

Hidden Gem University is a small private school that has the flexibility and agility to add programs and change the curriculum to meet the current demands of the business environment to prepare graduates for successful careers. Economic pressures are forcing the University to make tough decisions to focus on core programs and reduce costs to stay relevant in the changing landscape of higher education. The MBA program was added to the curriculum six years ago and struggled to get started with the heavy competition from the state university in the area. However, the ability to react quickly and provide resources to support students is now paying off and Hidden Gem is experiencing increased enrollment in the MBA program. The program has grown steadily and is very popular not only with Hidden Gem's traditional college-aged students, but also with non-traditional adult students because it provides business acumen, leadership skills, and the credentials to achieve promotions and be competitive in the job market. The MBA program is especially popular with the faculty and staff at the University due to the University's tuition waiver program.

The Employee Tuition Waiver Program

One enticing employee benefit of Hidden Gem University is the Tuition Waiver Program. Employees of Hidden Gem are able to take advantage of a tuition waiver program that allows faculty, staff, and their dependents to attend classes at the University at no charge. Prospective students go through the same process as everyone else for acceptance into the University and must abide by all other requirements as students at the University. However, they attend classes for academic credit with no tuition payment due, ever. The tuition waiver program is available for any degree program at the University. With the downturn in the economy, the MBA program has become particularly enticing as a way to achieve a valuable degree at no cost, other than books. It is also a relatively inexpensive way to attract and retain faculty members in an industry with a highly skilled workforce.

The Performance Report

The finance committee had been working for weeks on preparing performance reports for each program offered and presented the results at the University strategic planning meeting. They evaluated each line item and utilized activity-based costing to allocate overhead and common costs to the degree programs. Each performance report included budget-to-actual amounts, along with budget variances in dollars and percentages. The performance report for the MBA program is provided in Exhibit A.

Case Requirements

1. The Dean has enlisted your help to understand the concepts of performance reporting and responsibility accounting. Answer the following questions to help the Dean understand these concepts:
 - a. Is the performance report for the MBA program of Hidden Gem in Exhibit A based on a static budget or a flexible budget? Explain.
 - b. What type of responsibility center is the MBA program at Hidden Gem University? What facts in the case lead you to believe this?
 - c. Consider flexible budgeting concepts to evaluate the performance report for the MBA program of Hidden Gem in Exhibit A. Determine which line items are fixed or variable costs and describe what activity level should be used for the MBA performance report. Provide your recommendations on any changes that should be made to the MBA program performance report to incorporate flexible budgeting and explain why.
 - d. Using responsibility accounting for decision making and control, evaluate which revenues and expenses should be included or excluded from the performance report for the MBA program at Hidden Gem University in Exhibit A. Specifically, consider how the employee tuition waivers should be reported as well as how common costs and/or costs directly related to the MBA program should be

- reported. Provide your recommendations on any changes that should be made to the MBA program performance report to incorporate responsibility accounting and explain why.
2. Use Excel to prepare a revised performance report for the MBA program at Hidden Gem University which integrates flexible budgeting and responsibility accounting.
 3. Prepare a memo to Jamie, the finance committee chair, to send with your revised performance report. In the memo provide a brief description of the concepts of flexible budgeting and responsibility accounting and why these concepts should be used to evaluate the performance of each program. Additionally, describe the changes you made to incorporate flexible budgeting and responsibility accounting into the performance report for the MBA program. Finally, describe the overall impact discontinuing the MBA program will have on the University as a whole.

Exhibit A

Hidden Gem University
Performance Report for the MBA Program
For the Year Ended May 31, 2021

	Budget	Actual	Variance	%	
Revenue					
Tuition & Fees	\$ 3,117,600	\$ 3,765,982	\$ 648,382	21%	F
Employee Tuition Waivers	(1,237,856)	(2,053,940)	816,084	66%	U
Net Revenue	<u>1,879,744</u>	<u>1,712,042</u>	<u>167,702</u>	<u>9%</u>	U
Program Expenses					
Faculty and Staff Salaries & Benefits	764,108	769,195	5,087	1%	U
Adjunct Faculty Wages	18,000	52,450	34,450	191%	U
Educational Materials	13,452	19,424	5,972	44%	U
Total Program Expenses	<u>795,560</u>	<u>841,069</u>	<u>45,509</u>	<u>6%</u>	U
Supporting Expenses					
Other Personnel Cost	425,046	466,437	41,391	10%	U
Advertising	33,430	38,382	4,952	15%	U
Conference Fees & Travel	23,894	20,973	2,921	12%	F
Computer Lease	18,450	20,121	1,671	9%	U
Depreciation	15,827	19,993	4,166	26%	U
Facilities/Insur/Prop Tax/Utilities	304,396	311,936	7,540	2%	U
Cleaning & Sanitization	47,141	54,767	7,626	16%	U
Total Supporting Expenses	<u>868,184</u>	<u>932,609</u>	<u>64,425</u>	<u>7%</u>	U
Total Expenses	<u>1,663,744</u>	<u>1,773,678</u>	<u>109,934</u>	<u>7%</u>	U
Operating Income/Loss	<u>\$ 216,000</u>	<u>\$ (61,636)</u>	<u>\$ 277,636</u>	<u>129%</u>	U

Additional Notes:

- The MBA program actually delivered 2,160 credit hours of instruction during the year ended May 31, 2021. The budget was based on an estimated 1,800 credit hours. No changes have been made to the budget amounts.
- Tuition and Fees** result from the credit hours of students in the MBA program.
- Employee Tuition Waivers** are employee benefits provided to University employees (and their family members). The waivers are offered as a matter of University policy and individual program directors do not have control over waivers granted for specific programs. The amount of Employee Tuition Waivers on the performance report in Exhibit A reduces revenue by the MBA tuition dollars waived for all students enrolled in the MBA program and represents 83% of the University's total tuition waivers. The remaining 17% of tuition waivers are enrolled hours for other degree programs that are not part of the MBA program and are, therefore, reflected on the performance reports of those programs. Tuition waivers for employees (and their family members) whose jobs are affiliated with the MBA program were budgeted at \$153,675. These students are pursuing a variety of degrees across the University, including the MBA program, and the actual usage amounted to \$162,897. The actual amount less an exclusion provided by the Internal Revenue Service is considered compensation to the employees because it is an employer-provided benefit.

4. **Program Expenses** are traceable costs to deliver the MBA program.
5. **Adjunct Faculty Wages** are paid a flat amount per course. The original budget was based on hiring adjunct instructors to teach three courses. However, with the increase in students enrolled in the MBA program, an additional six courses were added for a total of nine MBA courses which were taught by adjunct instructors during the year.
6. **Supporting Expenses** include:
 - a. allocated common costs from other departments (e.g., president/provost office, human resources, finance, facilities, etc.) using activity-based costing (e.g., facilities costs are allocated based on square footage used for the respective program, cleaning & sanitization costs are allocated based on credit hours of classroom use, etc.), and
 - b. controllable direct costs of the MBA program (e.g., advertising for the MBA program, conferences related to the MBA program, etc.).
7. **Advertising** costs include both allocated amounts from the University advertising and costs directly associated with promoting the MBA program. The Dean was instrumental in the design of the MBA program messaging in the advertisements to increase interest in the program. The actual cost incurred for MBA program advertising was \$7,000 as originally planned in the budget.
8. **Conference Fees & Travel** costs were incurred for conferences directly tied to the MBA program and, therefore, 100% traceable to the program.
9. **Cleaning & Sanitization** is provided by the University and allocated to the MBA program based on the number of credit hours. The MBA program director has the authority to contract with an external company for these services but, after evaluating alternatives, decided to use the University provided cleaning and sanitization services.

TEACHING NOTES

Case Overview

This case study is based on a real-world scenario at a university. The performance report of a degree program comparing actual to budgeted amounts resulted in negative operating income which led to discussions regarding the viability of the program. However, the performance report included allocated common costs and revenue offsets that were not directly traceable to the program. In addition, the budget amounts were not recalculated to adjust for increased actual volume which created even higher variances due to the difference in activity levels between the original budget amounts and the actual performance.

With the downturn in the economy and changes in higher education, Hidden Gem University is taking a hard look at the profitability of each of its programs. One program under review is the MBA program. This program is growing, but the operating income on the performance report is negative which is causing concern about the viability of the program. The University is evaluating each program to determine the value it adds to the long-term health of the University. Through the use of this case study, students will be challenged to critically think about the interconnectedness of concepts such as performance reports, flexible budgets, responsibility accounting, and business decision-making regarding discontinuing a segment.

As instructors introduce the case study it is important to mention that the evaluation of college programs, similar to the evaluation of business segments or products should never be based solely on profitability. Many other factors would impact the decision to discontinue a business segment, product line, or college program. For example, the college program may attract students to the campus who also take advantage of other degree programs. The program may be in line with the mission of the university, complement other degree programs, and also absorb a portion of the common costs of operations. Understanding how to determine the profitability of each program through the lens of responsibility accounting provides one metric for strategic planning discussions.

Motivation and Contribution

This teaching case is based on the actual experiences and discussions of one of the authors at an institution of higher learning. This case adds to the body of literature by highlighting how decision-makers can improperly use accounting information to make decisions and, reiterates the importance of understanding data and information before performing an analysis or making a decision.

The topic of responsibility reporting is covered in most introductory managerial and cost accounting textbooks (e.g. Wild & Shaw, 2021; Hilton & Platt, 2020; Datar & Rajan, 2020). The end-of-chapter materials for these books provide short exercises and problems on the topic but do not provide the in-depth analysis found in this case study. There are other materials available to educators wishing to teach responsibility accounting. For example, Harvard Business Review offers several articles and cases on the topic. Young (2013) provides an in-depth discussion of the “relationship between cost accounting and responsibility accounting, distinguishing between measurement and control.” However, this discussion article does not provide a real-world application for the students. Other cases tangentially cover the topic in a broader manner, such as designing responsibility centers (Young, 2014), using a spreadsheet to calculate variances (Young, 2012), or considering how an organization’s strategy can be used to determine responsibility centers (Young, 2012 (2); Hoozee et al., 2020).

This case fills a gap by integrating the topics of cost behavior, flexible budgeting, and responsibility accounting into one case study while providing a real-world situation where decision-makers are improperly using accounting information to make decisions.

Learning Objectives

Upon completion of this case study, students will be able to:

1. Understand key managerial accounting concepts, including fixed vs. variable costs, performance reports, flexible budgets, and responsibility accounting.
2. Evaluate a performance report and make recommendations on changes necessary to incorporate flexible budgeting.
3. Analyze revenues and expenses for inclusion in a responsibility report.
4. Demonstrate knowledge in Excel to prepare a revised responsibility report.
5. Produce a written memorandum to communicate relevant information for business decision-making.

Suggested Answers for Case Requirements

Question 1 is designed to cover the basic concepts and help students identify relevant information needed to analyze the case study and answer the additional case requirements.

1. *The Dean has enlisted your help to understand the concepts of performance reporting and responsibility accounting. Answer the following questions to help the Dean understand these concepts:*

- a. Is the performance report for the MBA program of Hidden Gem in Exhibit A based on a static budget or a flexible budget? Explain.**

The performance report for the MBA program of Hidden Gem University in Exhibit A is based on a static budget. Additional Notes for Exhibit A, Note 1 states that the budget amounts are based on 1,800 credit hours and the actual amounts are based on 2,160 credit hours.

- b. What type of responsibility center is the MBA program at Hidden Gem University? What facts in the case lead you to believe this?**

The MBA program of Hidden Gem University is assumed to be a profit center in this case. We make this assumption because we see that the program is held responsible for both revenues and costs associated with the program. The Dean was instrumental in the development of the MBA advertisements to increase enrollment in the program. We further see in the Additional Notes to Exhibit A that there are costs both within and beyond their control included in the performance report. This would indicate the MBA program had responsibility over the revenues it generated but did not have responsibility over all costs associated with the program, specifically, the allocation of common costs and the University policy for tuition waivers.

- c. Consider flexible budgeting concepts to evaluate the performance report for the MBA program of Hidden Gem in Exhibit A. Determine which line items are fixed or variable costs and describe what activity level should be used for the MBA performance report. Provide your recommendations on any changes that should be made to the MBA program performance report to incorporate flexible budgeting and explain why.**

Credit hours should be used as the activity level for the MBA program of Hidden Gem University. Variable revenue and variable costs vary directly and proportionally with the number of credit hours. In order to convert the static budget presented in Exhibit A to a flexible budget, you must identify the variable revenue and variable costs and revise these amounts.

Considering cost behavior and utilizing the information provided in the Additional Notes to Exhibit A, four budget line items are variable - Tuition & Fees, Adjunct Faculty Wages, Educational Materials, and Cleaning & Sanitization. Three of the variable items change with the volume of credit hours: Tuition &

Fees, Educational Materials, and Cleaning & Sanitization. The fourth variable cost changes by the number of classes: Adjunct Faculty Wages vary based on the number of classes taught. All other budget line items are fixed.

For the budget items that vary based on credit hours, determine the rate per credit hour by dividing the budget amount by the budgeted credit hours of 1,800. Then, multiply that budget rate per credit hour by the actual credit hours of 2,160 resulting in the revised budget amount.

Tuition & Fees: $\$3,117,600 / 1,800 \times 2,160 = \$3,741,120$

Educational Materials: $\$13,452 / 1,800 \times 2,160 = \$16,142$

Cleaning & Sanitization: $\$47,141 / 1,800 \times 2,160 = \$56,569$

For Adjunct Faculty Wages, determine the budget rate per class by dividing the budget amount by the budgeted number of classes and then multiplying by the actual number of classes resulting in a revised budget.

Adjunct Faculty Wages: $\$18,000 / 3 \text{ budgeted number of classes} \times 9 \text{ actual number of classes} = \$54,000$

- d. Using responsibility accounting for decision making and control, evaluate which revenues and expenses should be included or excluded from the performance report for the MBA program at Hidden Gem University in Exhibit A. Specifically, consider how the employee tuition waivers should be reported as well as how commons costs and/or costs directly related to the MBA program should be reported. Provide your recommendations on any changes that should be made to the MBA program performance report to incorporate responsibility accounting and explain why.

As a profit center, the MBA program director is responsible for Tuition & Fees (i.e., revenue) as well as Program Expenses which are traceable costs to deliver the MBA program. These budget line items are controllable and should remain on the MBA program's performance report.

The Employee Tuition Waivers and Supporting Expenses require careful analysis and critical thinking. The cost of Employee Tuition Waivers is reported as a reduction to revenue in Exhibit A. However, the MBA program has no control over instituting or continuing the Tuition Waiver Program at the University level, nor how many employees will enroll in MBA courses as part of the waiver program. Since the MBA program has no control over tuition waivers, the revenue offset of tuition waivers should be excluded from the MBA program's responsibility report for determining net revenues. However, the cost of the tuition waiver program is an employee benefit. Other employee benefits are included in Faculty and Staff Salaries & Benefits which are Program Expenses and, as mentioned above, are controllable costs that should be in the MBA program's performance report. The Employee Tuition Waivers should be reflected on the performance reports for each degree program as an additional employee benefit cost (rather than a reduction in revenue) but the amount should be tuition waiver costs associated with employees whose jobs are affiliated with the specific program (rather than tuition waiver costs of students enrolled in the program).

Supporting Expenses are typically cost to run the organization and allocated across all departments and programs within the organization. Therefore, these "common costs" are not within the control of specific programs. However, the Additional Notes to Exhibit A provide details that Advertising, Conference Fees & Travel, and Cleaning & Sanitization are direct costs that are controllable, at least in part, by the MBA program director. The controllable portion of these three Supporting Expenses should be included in the MBA program's performance report. All other Supporting Expenses are not controllable by the MBA program director and should be excluded from the performance report.

Additionally, some terminology on the performance report needs to be revised. The most important revision is the term used for the bottom line. Since responsibility accounting considers only controllable

costs, the bottom line of the performance report should be labeled “controllable” operating income, or some textbooks refer to the bottom line as controllable margin (not be confused with contribution margin) or segment margin. Operating income or net income without the term controllable should not be used since not all costs are included in the performance report. Also important is adding the term “controllable” to the heading of each expense category which communicates to the reader that only controllable expenses are included in the performance report, rather than all expenses.

2. Use Excel to prepare a revised performance report for the MBA program at Hidden Gem University.

Hidden Gem University								
Performance Report for the MBA Program								
For the Year Ended May 31, 2021								
	Original Budget			Flexible Budget	Actual	Variance	%	
Hours	1800			2160	2160			
		Cost Behavior	Rate					
Revenue								
Tuition & Fees	\$ 3,117,600		1,732	\$ 3,741,120	\$ 3,765,982	\$ 24,862	0.7%	F
Net Revenue	3,117,600			3,741,120	3,765,982	24,862	0.7%	F
Controllable Expenses								
Faculty and Staff Salaries & Benefits	764,108	Fixed		764,108	769,195	5,087	0.7%	U
Employee Benefits - Tuition Waivers	153,675	Fixed		153,675	162,897	9,222	6.0%	U
Adjunct Faculty Wages	18,000	Variable per class*	6,000	54,000	52,450	1,550	2.9%	F
Educational Materials	13,452	Variable per hour	7	16,142	19,424	3,282	20.3%	U
Program Advertising	7,000	Fixed		7,000	7,000	-	0.0%	F
Conference Fees & Travel	23,894	Fixed		23,894	20,973	2,921	12.2%	F
Cleaning & Sanitization	47,141	Variable per hour	26	56,569	54,767	1,802	3.2%	F
Total Controllable Expenses	1,027,270			1,075,389	1,086,706	11,317	1.1%	U
Controllable Operating Income/Loss	\$ 2,090,330			\$ 2,665,731	\$ 2,679,276	\$ 13,545	0.5%	F

*3 classes planned, 9 classes actually taught by adjunct instructors

3. Prepare a memo to Jamie, the finance committee chair, to send with your revised performance report. In the memo provide a brief description of the concepts of flexible budgeting and responsibility accounting and why these concepts should be used to evaluate the performance of each program. Additionally, describe the changes you made to incorporate flexible budgeting and responsibility accounting into the performance report for the MBA program. Finally, describe the overall impact discontinuing the MBA program will have on the University as a whole.

Each student’s memo will be different but should address the topics in Case Requirement 1. Additionally, the student is asked to address the overall impact on the University if the MBA program is discontinued. The student should point out that if the MBA program is discontinued the operating loss of \$61,636 reflected in Exhibit A would not be a savings to the University. Instead, the University would lose money because the MBA program lost revenue exceeds the cost savings due to direct expenses that would be eliminated by discontinuing the program. Common costs which are allocated to the MBA program would not be eliminated but rather reallocated to other programs within the University if the MBA program is discontinued.

A rubric was created for this case (see Appendix 1). This rubric was created using a 100-point scale, allocating 50 points to Analysis and Conclusions, and 25 points each to the preparation of Excel Report and Memo. While the three categories line up nicely with the three case requirements, the grading criteria of “Analysis and Conclusion” could be supported by any of the three Case Requirements. Instructors should modify this rubric, based on the Case Requirements assigned to the class.

Intended Audience

This case study is flexible and can be implemented in a variety of accounting courses depending on the instructor's focus. Managerial accounting, as well as cost accounting courses, are the most obvious choice because the case directly addresses the managerial topics of cost behavior, flexible budgets, and responsibility accounting.

For instructors who are searching for cases to help integrate topics across the accounting curriculum, this case could be used in a governmental/not-for-profit accounting course by reinforcing business decision-making in a university setting and discussing how governmental accounting and managerial topics interconnect in the real world.

Additionally, instructors seeking cases that provide students the opportunity to put into practice Excel skills (Case Requirement 2) and/or written communication skills (Case Requirement 3) will find this case can be implemented in any accounting course sequenced after managerial accounting but, in this situation, a refresher on the managerial topics involved in the case may be necessary for the students.

Implementation Guidance

This case study is designed to allow flexibility in implementation to achieve the objectives of the course. All three case requirements can be assigned together, or only one or two of the deliverables can be assigned depending on the specific course content and level of course within the curriculum.

For undergraduate courses, our recommendation is to set aside one face-to-face class period (approximately 50 minutes) and focus on Case Requirement 1. Approximately 15 minutes is necessary to introduce the case, highlight important managerial concepts to be used in the case (i.e., cost behavior, flexible budgets, and responsibility accounting), and form breakout groups of 2-3 students. The case is short enough that the instructor can easily read or summarize the case for the students. The managerial concepts may require more or less time depending on the proximity of the case study to the coverage of related course topics. The next approximately 15-20 minutes should be in the breakout groups with students discussing the four questions in Case Requirement 1. The remaining class time (approximately 10-20 minutes) is then used for classroom discussion of the findings of the groups. During the class discussion, the instructor displays the performance report from Exhibit A to make notes regarding changes needed.

If the class period is longer (e.g., 75-80 minutes), the instructor could invite students to mark up the original report shown in Exhibit A with suggested changes or, if computers are available, create a revised performance report in Excel (Case Requirement 2). Then, display the solution to Case Requirement 2 to conclude the case study discussion. In addition, instructors could have students think critically about their own program of study and compile a list of types of costs that would be included for evaluating the profitability of the program. Having students form groups by program of study would be beneficial for this type of discussion. Remind students that profitability is not the only metric for evaluation to encourage them to also list other factors that should be considered when evaluating college programs.

We have found the case to be effective when using solely Case Requirement 1 in a single class period as well as when supplementing the class period with an outside-of-class assignment of either Case Requirement 2 or 3, depending if the instructor wishes to focus on Excel skills or written communication skills. For undergraduate courses that are online, we recommend first introducing the relevant topics in the same manner that other topics are delivered in the online course then assigning Case Requirement 1 as a written deliverable individually. But, of course, if the instructor wishes to integrate teamwork into the online class, the written deliverable could be assigned in groups. The instructor can give feedback on the written assignment by grading the assignment and has the option to additionally assign Case Requirement 2 (Excel) or 3 (memo).

For graduate-level courses, we recommend that the students use Case Requirement 1 as a guide to help them analyze the case and then assign the student deliverables as Case Requirements 2 (Excel) and Case Requirement 3 (memo).

As long as the course has already covered the relevant managerial topics, our experience is that graduate students are able to successfully complete the case without allocating class time specifically for the case. This makes the case ideal as an outside-of-class assignment for face-to-face classes but also for online and hybrid course formats.

Classroom Validation

The implementation options for this case study are wide-reaching due to the variety of universities, students, courses, and course formats where we have used this case.

The case has been implemented at three universities which include both private and public universities and in courses at three different levels – undergraduate foundational courses, upper-level undergraduate courses, and graduate courses. The case study has been used in undergraduate managerial courses where the students are typically sophomore-level business majors, an undergraduate governmental/not-for-profit accounting course where students are typically accounting majors in their junior year, and graduate-level accounting analysis courses which are part of the MBA business core. Additionally, the case has been used in face-to-face, hybrid, and online course formats.

Following the completion of the case study assignment, students were asked to participate in a follow-up survey to assess the effectiveness of the case study. The survey responses were based on seven ratings (strongly agree, agree, somewhat agree, neither agree nor disagree, somewhat disagree, disagree & strongly disagree). Using the top two ratings (strongly agree and agree) as a positive response, 79.1% of the students participating in the survey felt the case study helped them to feel more confident in the ability to identify and categorize relevant information needed to develop a responsibility report for performance evaluation; 84.9% of the students indicated that the case study helped them to better understand the concepts of performance evaluation; 81.4% of the students felt that the case study helped them to value of the role of accountants in the business environment; 80.2% indicated the time dedicated to the case study was worthwhile, and 84.9% indicated that the case study should continue to be used in the course. Table 1 provides the student feedback by course.

Overall, the students in the graduate-level MBA course had the most positive responses to the case study assignment. The case study was completed outside of the classroom and the survey inquired about the amount of time students spent on the assignment. The survey responses indicated that 9.6% of the students completed the assignment in 30 minutes to 1 hour, 44.2% of the respondents completed the assignment in 1 to 2 hours, and 46.2% worked on the assignment for more than 2 hours.

Some of the student comments from the students in the comments section of the survey are below:

- “I thought the responsibility accounting assignment was insightful and definitely something I will use when evaluating the P&L reports when I go to work. It gives a clear perspective on what needs to be, or does not need to be changed, and makes it easy to make those necessary changes in order to improve the reporting.”
- “I thought the assignment was well-conceived and offered good information to stimulate creative problem-solving.”
- “I enjoyed learning about responsibility accounting. It helped me understand expenses and revenues within the smaller departments and how that info is transferred to organizational reports.”

The survey also queried for suggestions on how to improve the case study and several revisions to the initial case study have been made. The first version of the case study asked students to evaluate and provide support for which revenues and expenses should be included or excluded from the MBA program performance report using responsibility accounting, but students were not asked to prepare a revised performance report. Students provided feedback that not preparing a revised performance report felt like a missed opportunity that would have contributed to their learning. Thus, the case requirement to prepare a revised performance report in Excel was added.

Students also mentioned the desire for additional materials to help them better understand the types of revenue and expenses incurred by a university. Based on this feedback, we expanded the information provided in the Additional Notes to Exhibit A.

After revisions to the case study, it was implemented in multiple sections of an undergraduate fundamental of managerial accounting course following instructions on flexible budgeting and performance evaluation. The concepts of business decision making including discontinuing a segment were covered earlier in the semester. The case study was completed during class by beginning with an explanation of the types of revenue and expenses that are common to universities. Student teams then identified relevant information needed to complete a revised performance report and the class discussed changes that would be made to develop a meaningful report for decision-making. Student feedback regarding the in-class discussion included a suggestion to incorporate “a conversation regarding different activity-based measurements could have been beneficial to further flesh out other managerial principles, but overall, the assignment did a great job improving our understanding of responsibility accounting.” Examples of other comments included:

- “I liked the assignment. I think it integrated what we had just learned in class into a real-world example that allowed me to see what it would really be like to be a managerial accountant.”
- “It was really helpful to go through the whole process from start to finish and see how these things actually work in the real world.”

The revised case study was also implemented in an upper-level course that covered governmental and not-for-profit accounting to access students’ ability to integrate concepts from prior courses and encourage critical thinking for business decision-making. These students reported the highest level of agreement that the case study helped them to value the role of accountants in the business environment (84.2%). Student comments included:

- “This was a great assignment for learning about responsibility accounting. Most of class didn't remember the concepts since it was briefly covered in our first managerial class. Great refresher!”
- “This assignment was a bit difficult! Everything on there were good things to put in, as it definitely helped me learn a bit more about the accountants role in the business world!”

The governmental students also reported the lowest score for feedback regarding whether they believe the case study should continue to be used in the course (63.2%). This course included extensive use of Excel, so the students were comfortable working with spreadsheets. One student suggested in the survey that: “The only thing that may have made it easier would have to include a formatted tab with the flexible budget.” Instructors could provide an Excel file with an additional sheet formatted for the flexible budget to save time and guide students through the steps to complete the revised performance report.

The student perceptions are useful as educators review materials to incorporate into their courses to achieve learning goals and objectives for the curriculum.

Limitations and Concluding Comments

One limitation of the classroom validation is that the case study was implemented in relatively small classes. The largest class included 27 students. Larger class sizes could incorporate a peer-review system in which student groups complete Case Requirement 1 during class and exchange their written products with another group. If students complete Case Requirements 2 and/or 3 individually, a peer-review system could also be incorporated to encourage feedback and discussion among students within a larger class. Another limitation to the classroom validation results from performing solely a post-test, rather than a pre-and-post-test was not completed for classroom validation, making it more difficult to attribute learning to the activity.

Case studies can be used to increase student engagement in a course and also increase understanding of the application of course concepts. Students seem particularly interested in case studies based on actual events. This case study was developed as a result of actual conversations regarding a college program and its perceived lack of profitability due to the financial report used for evaluating programs.

References

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Appendix 1: The Vanishing Tuition Quandary: Case Grading Rubric

Criteria	Unacceptable	Rudimentary	Good	Exemplary
Analysis & Conclusions	<p>0 Points</p> <p>Fails to identify conclusions, key issues, and implications; Fails to provide support.</p>	<p>25 Points</p> <p>Analysis and conclusions are incomplete; missing several key issues; considers limited implications; provides limited support.</p>	<p>40 Points</p> <p>Analysis and conclusions are complete; identifies most key issues; considers implications; provides support.</p>	<p>50 Points</p> <p>Analysis and conclusions are comprehensive; identifies all key issues; thoroughly considers implications; provides extensive support.</p>
Excel Report	<p>0 Points</p> <p>Report is poorly organized and lacks readability; fails to present key components; fails to utilize formulas and formatting adequately.</p>	<p>10 Points</p> <p>Report organization and readability are somewhat lacking; missing several key components; limited use of formulas and formatting.</p>	<p>20 Points</p> <p>Report is organized and understandable; presents most key components; utilizes formulas and formatting.</p>	<p>25 Points</p> <p>Report is well organized and easy to understand; presents all key components; fully utilizes formulas and formatting.</p>
Memo	<p>0 Points</p> <p>Poorly communicated; lacks professionalism; extensive grammar, punctuation, and spelling errors.</p>	<p>10 Points</p> <p>Not well communicated; somewhat professional; frequent grammar, punctuation, and spelling errors.</p>	<p>20 Points</p> <p>Reasonably well communicated; mostly professional; limited grammar, punctuation, and spelling errors.</p>	<p>25 Points</p> <p>Communicated logically and comprehensively; very professional; free of grammar, punctuation, and spelling errors.</p>

Table 1: Student Perceptions of the Case Study Assignment

Survey Item	Overall Percentage of Students that Agree	Graduate MBA Course Percentage of Students that Agree	Undergraduate Managerial Percentage of Students that Agree	Governmental Course Percentage of Students that Agree
	n = 86	n = 52	n = 15	n = 19
As a result of the responsibility accounting assignment, I feel more confident in my ability to identify and categorize relevant information needed to develop a responsibility report for performance evaluation.	79.1%	80.8%	73.3%	78.9%
The responsibility accounting assignment helped me to better understand the concepts of performance evaluation.	84.9%	86.5%	80.0%	84.2%
The responsibility accounting assignment helped me to value the role of accountants in the business environment.	81.4%	82.7%	73.3%	84.2%
The responsibility accounting assignment should continue to be used in this course.	80.2%	84.6%	86.7%	63.2%
I think the time devoted to the responsibility accounting assignment was worthwhile.	84.9%	82.7%	86.7%	89.5%
Time to complete the assignment:				
30 minutes or less	3.5%	0.0%	13.3%	5.3%
30 minutes to an hour	25.6%	9.6%	66.7%	36.8%
1 to 2 hours	41.9%	44.2%	20.0%	52.6%
more than 2 hours	29.1%	46.2%	0.0%	5.3%