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TEACHING & CURRICULUM SECTION
AMERICAN ACCOUNTING ASSOCIATION

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The Accounting Educator

INSIDE

A Message from the President

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Another semester has receded into the past. Accounting educators have congratulated themselves for a job well done. All over the country, students have made progress in their transition into accounting professional. All is well with the world. Or is it?

Change happens slowly, especially in the academy. As the keepers of the culture, we are not supposed to be swept along with the winds of the day. Tenure ensures that we are different from other white collar workers in that we will not be as readily injured by economic tides. Nonetheless, when we look at the accounting discipline as a whole, one cannot say that these are even close to the best of times.

An old joke has the crusty professor ask each member of the class to look to the left and the right at other students, and then say that one of the two people are going to fail or drop. If you had looked at your colleagues the same way a decade ago, odds are one of them are no longer with you. Every time the Hasselback Directory comes out it take fewer pages. The greatest threat to accounting education today is the disappearance of the accounting professor.

My research suggests that our discipline has gone on a roller coaster ride over the last quarter century. The impressive gains of the 1980s in which time accounting gained recognition and credibility as a discipline have been completely erased in the last 15 years.

Contrary to expectations, a deprofessionalization is only part of the story. It is true that some tenure track faculty with research expectations have been replaced by retired accounting partners and by full time instructors. However, that mostly took place during the upswing era. In the downswing, tenure track lines opened by retirements or tenure denials have been not

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filled. Many schools now are essentially busting the work out one course at a time to transients without even full time commitments to the institution.

Let us review how this happened. The doctoral schools reduced their support for doctoral programs. Production of new scholars is down 50% since 1989. This had the effect of bidding up starting salaries, creating a false sense of wellbeing for some and salary compression for everyone else. This was combined with the every increasingly tight stranglehold that the premier journals in this discipline are held. Young scholars found it much more difficult to publish in accordance with every rising expectations. Many Deans saw that filling a tenure track slot in accounting was a bad investment. Cheaper substitutes were found. If it is any more complicated that this, could somebody tell me how it works?

I know that we cannot do much to make sure that we can explain that we are not dinosaurs. We must fight against all the ideas that have brought us to this conclusion. They are all versions of one size fits all thinking about the value added nature of research and teaching.

In case you have not guessed, I refuse to write the typical president's letter in which I thank everyone for their contributions to the section and proclaim what wonderful work we are all doing. That is true enough that it does not have to be said over and over again. There are bigger more important uses for this space.

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Call for Papers—The Accounting Educator

You are invited to contribute a short article or case (maximum two single-spaced pages, 12 point font) for publication in an upcoming issue of *The Accounting Educator*, the newsletter of the T&C Section. The theme is "Ideas for Teaching Intermediate Accounting, Tax, Nonprofit, Governmental, Systems and Auditing Courses." Please send your article as an email attachment (MS Word format) directly to Wendy Tietz at wtietz@gmail.com. Also, if you have any T&C committee reports or other information for the newsletter, please send those reports to Wendy as well. Thank you so much!

	Submission Date	Tentative	Theme
Spring 2006	May 1, 2006	June 1, 2006	Ideas for Teaching Intermediate Accounting, Tax, Nonprofit, Governmental, Systems and Auditing Courses

Have You Seen?

Dr. Nashwa George, Montclair State University, georgen@mail.montclair.edu

A tool for accessing accounting cases

Gerald P Weinstein. **Journal of Accounting Education**. Harrisonburg: 2005.Vol.23, Iss. 3; pg. 204

Abstract

The utilization of cases in accounting education has increased significantly in the past two decades and the number of sources of these cases has also grown larger. Accounting faculty wanting to use cases from these sources are hindered in their ability to do so because of the lack of a central case clearinghouse. The data collection underlying this paper is designed to alleviate this problem. A computerized database of accounting cases is offered to anyone free of charge. The intent is to provide a functionally useful index that will help faculty locate cases for use in their accounting classes. This article explains how faculty can access and use this database. In addition, cases published between 1983 and 2003 in two accounting education journals are summarized in order to provide an overview.

Oral and written communication apprehension in accounting students: Curriculum impacts and impacts on academic performance

Clare T Gardner, *Markus J Milne*, *Carolyn P Stringer*, *Rosalind H Whiting*. **Accounting Education**. London: Sep 2005.Vol.14, Iss. 3; pg. 313

Abstract (Document Summary)

In the context of an accounting curriculum that has been significantly modified over the past decade in response to calls for skills development, this study investigates the impacts of curriculum on students' levels of communication apprehension. An emerging concern in accounting is that attempts made to improve students' communication skills may fail or be less effective for some students because such attempts do not improve, or may even exacerbate, students' anxiety about communicating, which in turn leads to poorer performance. The results from this New Zealand study show that students in their final year of study in which they are exposed to greater communication demands do not, on average, have higher levels of communication apprehension in earlier studies than their peers do. The levels of communication apprehension for final year students decline most markedly for those students starting with higher average levels of apprehension. The results fail to find any strong associations between levels of communication apprehension and students' abilities to advance in their studies or average levels of academic performance. One finding that opens up the possibility for further research, however, is that students' anxiety about communicating in interviews is not reduced.

Accounting Educators, Take Note

Lakshmi U Tatikonda, *Janet McKnight*. **Strategic Finance**. Montvale: Sep

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2005.Vol.87, Iss. 3; pg. 19, 2 pgs

Abstract

A survey conducted by the National Association of Colleges and Employers found that accounting is the number-one major employers are demanding in 2005. The increased demand for accounting professionals coupled with the low number of accounting graduates is expected to result in a severe shortage of qualified accounting and finance professionals. Accounting educators need to help businesses meet their hiring needs for accounting and finance professionals by increasing the number of students pursuing accounting majors. They can start by adopting active learning strategies such as real-world cases, learning teams, and computer-based learning modules that make the accounting curriculum more relevant and interesting. Establishing and maintaining students' interest as they progress through the accounting curriculum and experience increasingly difficult curricular requirements is essential to keeping students as accounting majors and thereby increasing the number of accounting program graduates. Incorporating new theoretical concepts and changes in regulations affecting the accounting profession into the curriculum is essential, but it is not enough.

.The Influence of Effective Teaching in Accounting on Student Attitudes, Behavior, and Performance

Julia Shaftel, *Timothy L Shaftel*. **Issues in Accounting Education**. Sarasota: Aug 2005.Vol.20, Iss. 3; pg. 231, 16 pgs

Abstract

In 1993 the School of Business at a large midwestern university established a task force to redesign its introductory accounting/business course. The task force shared many goals of the contemporaneous Accounting Education Change Commission, which addressed desirable attitudes and behaviors for the profession. Although approaches to knowledge and skill development are well understood at universities, much less is known about the impact of effective accounting education on student attitudes and behavior. After implementing instructional interventions, student attitudes and study skills improved significantly over one semester. The causal relationship of attitudes and behaviors was modeled using the Theory of Reasoned Action. Self-reported behaviors were validated by external ratings and course performance. Achievement attitudes were strongly and directly influenced by subjective norms. Our results reflect positively on the activities and procedures used to create normative influences within the class. In particular, the use of teaching assistants (TAs) as positive role models was substantiated. [

Integrating accounting topics within or across functions: Effects on students' structure and use of knowledge

Lori S Kopp, *Fred Phillips*. **Journal of Accounting Education**. Harrisonburg: 2005.Vol.23, Iss. 3; pg. 170

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Abstract

This study investigates whether students who learn accounting topics in courses organized by function (e.g., financial and managerial) structure their knowledge differently than students who learn the same topics in courses that integrate across functions. The study also examines whether students' use of this knowledge depends on how subsequent test problems are structured. Results of a laboratory experiment indicate that the organization of topics affected how students structured their knowledge in memory. Further, when students subsequently solved test problems, recall of knowledge was superior on test problems that possessed a structure similar to students' memory structures and inferior on test problems that were not similar to their memory structures. No recall differences were detected when students solved problems that did not favor a particular structure. Implications of the results for course design and student assessment are discussed.

Prerequisite Change and Its Effect on Intermediate Accounting Performance

Jiunn Huang, *John O'Shaughnessy*, *Robin Wagner*. **Journal of Education for Business**. Washington: May/Jun 2005.Vol.80, Iss. 5; pg. 283, 6 pgs

Abstract

As of Fall 1996, San Francisco State University changed its introductory financial accounting course to focus on a "user's" perspective, de-emphasizing the accounting cycle. Anticipating that these changes could impair subsequent performance, the Department of Accounting instituted a new prerequisite for intermediate accounting: Students would have to pass either a pretest or a 1-unit course focusing on the accounting cycle. In this study, the authors analyzed the effectiveness of the screening/remedial system and concurrent effects on performance. They found that students who passed the pretest or accounting cycle class received significantly better grades in intermediate accounting than did students who failed either the pretest or the 1-unit course and than students who did not take either the pretest or the 1-unit class. This finding implies that this form of pretest/remedial course screen would be effective in similar universities in which a large percentage of accounting majors have taken introductory financial accounting at a community college.

Accounting Education Challenges Could Have Big Ramifications for Government

Relmond P Van Daniker. **The Journal of Government Financial Management**. Alexandria: Spring 2005.Vol.54, Iss. 1; pg. 4, 1 pgs

Abstract

Accounting education is undergoing enormous changes as curricula is adjusted to accommodate the new requirement that candidates sitting for the Certified Public Accountant (CPA) examination in many states have 150 hours of undergraduate classes. Faced with a fifth year of college, many accounting students are opting to enter the work force upon graduation, rather than pursuing graduate degrees. Couple this with the shortage of Ph.D. students currently enrolled in accounting programs and the result is a future lack of qualified accounting professors, which creates a vicious circle. Another aspect to consider is the shortage of gov-

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ernment accounting programs. This trend is occurring across the country as the few government accounting classes are disappearing as faculty retire or move to the private sector. With the private sector in the throes of Sarbanes-Oxley implementation, the firms are hiring at unprecedented rates. Government will be hard-pressed to compete with the salary packages offered by these firms.

The Effectiveness of the 150-Hour Requirement

William H Dresnack, *Jeffrey C Strieter*. **The CPA Journal**. New York: Apr 2005.Vol.75, Iss. 4; pg. 64, 3 pgs

Abstract (Document Summary)

In 1988, the AICPA membership voted overwhelmingly to require increased education of all new members after 2000. The 150-hour requirement, as it is known, has since been adopted by most states. Today, only four states (California, Delaware, New Hampshire, and Vermont) do not have in place laws or regulations requiring applicants to take the CPA exam with at least 150 hours of college or university course work. An extensive survey was sent to AICPA members in Alabama, Kansas, Louisiana, Mississippi, Montana, South Carolina, Tennessee, Texas, and Utah. These nine states began requiring a 150 hour degree between 1993 and 1997. The data suggest that respondents found little or no benefit from the 150-hour requirement. In the most positive response, only 32.6% of respondents agreed or strongly agreed that 150-hour accountants are better able to analyze complex accounting problems.

Perceptions of the learning context and learning approaches: Implications for quality learning outcomes in accounting

Beverley Jackling. **Accounting Education**. London: Sep 2005.Vol.14, Iss. 3; pg. 271

Abstract

This study analyses learning approaches, course perceptions and learning outcomes of a group of second year accounting students at an Australian university using qualitative data analysis techniques. The research method involves the development of a series of matrices linking types of motives and strategies used by students in their study, together with their perceptions of the learning context associated with learning outcomes. The study focuses on assessing the links between learning approaches and a qualitative assessment of students' conceptual understanding of aspects of financial accounting studied at the undergraduate level. The results confirm how individual differences in the perceptions of the learning context relate to study motives and strategies. The findings show how different forms of memorisation relate to study strategies and how the completion of accounting tasks link to students' perceptions of course requirements. There was also some evidence that, in terms of learning outcomes, students with sophisticated levels of understanding of concepts, tended to have consistent deep and achieving approaches to learning. This result was compared with students' academic performance as a measure of learning outcome. Discrepancies between these two measures of learning outcome are highlighted in the conclusions. The findings strengthen the case for further investigation of the use of measures other than academic performance in examining relationships be-

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tween learning approaches and learning outcomes.

Secured Transactions: An Integrated Classroom Approach Using Financial Statements and Acronyms

W Michael Seganish. **Journal of Education for Business**. Washington: Mar/Apr 2005.Vol.80, Iss. 4; pg. 206, 3 pgs

Abstract (Document Summary)

Students struggle with the subject of secured transactions under the Uniform Commercial Code. In this article, the author presents a method that uses balance-sheet information to help students visualize the difference between secured and unsecured creditors. The balance sheet is also used in the Uniform Commercial Code process, in which one must classify the collateral to know the procedural steps to follow to become a secured creditor. The balance-sheet approach helps students identify inventories, real property (land), intangible assets, accounts receivable, and so forth. The students use acronyms to organize the steps necessary for becoming a secured creditor. The acronym CAPP helps students understand that one must classify the collateral, attach the security interest, perfect it, and obtain priority.

Improving accounting education through the use of action research

Catriona Paisey, *Nicholas J Paisey*. **Journal of Accounting Education**. Harrisonburg: First Quarter 2005.Vol.23, Iss. 1; pg. 1

Abstract

Action research is a systematic investigative research method that educators can use to improve aspects of their educational practice. Originally adopted in school situations, action research is becoming increasingly used within higher education. First, the paper explains the action research process. Second, the action research process is applied to a small-scale project undertaken by the authors in order to assist in the development of students’ research skills by encouraging them to read primary documents for themselves. Finally, the paper discusses the use and appropriateness of action research within accounting education. Some possible implications for accounting academe are also identified. It is argued that action research, with its emphasis on continuous improvement and the promotion of scholarly activity, is consistent with the accreditation standards issued by The Association to Advance Collegiate Schools of Business (AACSB).

A Low-Tech Approach to Encouraging Active Student Learning

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Some schools have invested in high-tech approaches to eliciting student participation in class. Typically, the instructor displays a multiple-choice question dealing with a topic that has just been covered in class on an overhead projector or computer monitor. The instructor asks each student to solve the problem and register his or her preferred choice on a networked input device. The instructor's computer gathers the students' responses and displays a summary. This approach encourages students to apply concepts in class and provides the instructor with feedback concerning how well students have learned what has just been covered in class. Based on that feedback, an instructor may feel justified in charging ahead to a new topic or may see that more time should be spent on firming up the concepts that were just covered.

While this high-tech approach has a lot to recommend it, I would like to suggest an alternative low-tech approach. On the first day of class I issue each student a set of five colored 3" x 5" index cards—let's assume the cards are pink, yellow, blue, green, and white. I ask the students to print "A" on the pink card, "B" on the yellow card, "C" on the blue card, "D" on the green card, and "I'm stumped" on the white card. I tell the students to bring the set of cards to every class. (I bring a few extra sets to each class for those students who forget to bring their cards.)

Just as in the high-tech approach, I liberally sprinkle multiple choice questions throughout my lectures. I display a multiple-choice question on the overhead monitor and ask students to raise their hands when they think they have the correct answer. If a lot of time passes without many students raising their hands, I know I have a problem and need to go back over the material. However, typically most students will have raised their hands within a few minutes. When I feel enough students have an answer, I tell students to select the colored card corresponding to the answer they have selected. On the count of three, all students raise their cards in unison. (The simultaneous showing of the cards is important—don't let students look around to see what other students have selected before they select a card.) If, for example, the correct answer to the question is A, I should see a sea of pink cards; if I don't, I know students aren't getting the material. If a lot of students select a particular distractor (i.e., wrong answer), I can go over the particular line of incorrect reasoning that leads to selecting that distractor. In any event, I have valuable feedback concerning how well students have mastered what we have been doing in class.

Why is this low-cost approach to eliciting in-class feedback and attractive alternative to the high-tech approach involving networked input devices? First, and most obviously, in contrast to equipping a lecture hall with networked input devices, index cards cost very little. Second, and more subtly, students lose their anonymity when they raise index cards. Students can see whether their neighbors get the correct answers and their neighbors can see whether they have the correct answer. This spurs healthy in-class competition that keeps students on their toes and transforms passive learners into active learners.

Incidentally, MBA students are not too sophisticated for this approach. Even more than undergraduates, they seem to enjoy the competitive aspects of the game. Particularly with the MBAs, it is important to occasionally ask a question (usually a conceptual question with a counter-intuitive answer) that most students will get wrong. This seems to delight students if not done too frequently and can be used as an effective way to introduce and motivate new material.

First Accounting Assignment: Leave Out the Accounting Terms

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> Pretend that you are a manager or owner of a business of your choice. I am a lender. You want to borrow money from me for your business. Prepare a one-page loan application in which you convince me to loan you money, but *you cannot use any accounting or financial terms!* You cannot mention income, revenue, assets, liabilities, or any other accounting or financial terms.

This is an assignment given on the first day of an introductory financial accounting class. The assignment is designed to be an eye-opener and a sounding board. Students often wonder why they must take an accounting class when they have no plans whatsoever to do any kind of accounting. As we all know, accounting is pervasive throughout all businesses. This assignment helps students to understand just how pervasive accounting is in their everyday lives as well as in business.

As the description of the assignment begins, the students are taking notes and appear happy that the assignment seems easy. As the discussion goes on, the students begin to look somewhat perplexed; most do not seem to realize how strange and difficult the last restriction is. Little guidance for this assignment is given, and the grading is quite lenient – students get credit for trying. Most students cannot avoid the restriction against using accounting or financial terms as they complete the loan request.

At the next class meeting, the assignment is picked up, and the students are asked to give feedback on what they wrote. At such an early point in the semester, students are typically reluctant to admit that they found the assignment difficult. Once students do begin participating, they mention that they found it quite difficult. The discussion then moves to "the big picture."

The Big Picture

The next topic discussed is what a lender really wants to know. One good point to make is that a lender is not always overly concerned with revenues, assets, liabilities, etc. What the lender really wants to know is, "Will this potential borrower repay the loan, with interest, in a timely manner?" The discussion moves on to ways that the lender can ascertain this information before making the loan. The students always jump to the financial information, but other possibilities, such as credit history and credit ratings, among other things, should be mentioned. Students should be encouraged to try to come up with these other potential sources of information. As this discussion progresses, students begin to see that financial information is an important piece of the puzzle that cannot be omitted in most business situations.

Another issue to be discussed during the assignment is materiality. As a lender, does it really matter if income is off by a small amount? Will it change the answer to the important question? Through the discussion and the use of examples, the students begin to see that some things can be immaterial (a small number, for example), but the size of the number may not be the only thing that matters. A large debt may not be as material if it is due far into the future as a smaller number that is due in the very near future.

As the semester progresses, the discussion often returns to the "big picture," which was discussed in the first few days of class, as a way to explain various accounting principles and concepts. For example, the use of estimates or the availability of various methods of calculating depreciation can be discussed with re-

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spect to the "big picture." The students can see that although accounting estimates do not provide "exact" numbers and the different methods of calculating depreciation produce different numbers, the differences don't change the "big picture" overall.

By the time the discussion of the assignment is done and the "big picture" is revisited throughout the semester, the students usually have a better understanding of exactly how important accounting is. They also understand that differences in accounting numbers don't necessarily make them wrong or diminish their usefulness. Hopefully, they realize that without understanding the concepts in the introductory accounting class, they are at a disadvantage in both their careers and their personal lives.

Making Financial Ratios More Than Formulas to be Memorized

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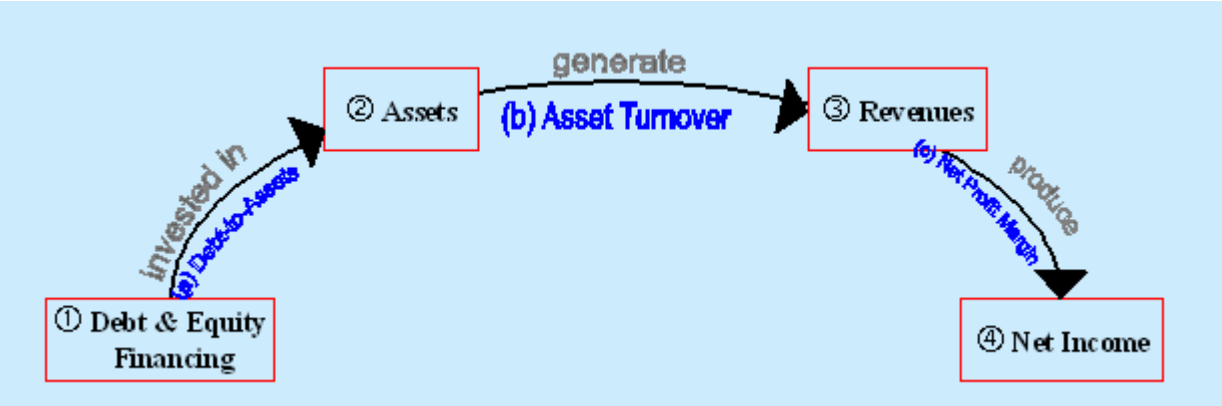
Many introductory accounting courses incorporate discussions of ratio analysis to show students how accounting is used to inform real-world decision making. Yet many students view these ratios as mere formulas to be memorized and calculated. This article presents four ideas to help introductory students understand how financial statement ratios can be used to measure the results of key business decisions and to assess performance.

1. When to introduce ratio analysis. The first important issue to consider is at what stage in the introductory course undergraduate students will be ready for financial statement ratio analysis. If an instructor introduces ratios before students understand the structure and elements of each financial statement, it seems unlikely that students will appreciate the meaning of formulas that involve dividing one financial statement element by another. Even locating the relevant information in real-world financial statements may be a challenge to introductory-level students if ratios are presented too early. Thus, an ideal stage for introducing financial statement ratios is immediately after the accounting cycle has been completed because, at this stage, students will be proficient at distinguishing among assets, liabilities, revenues, and expenses. At this point, students also are in a position to benefit from stepping back to take a look at the "bigger picture" before again becoming immersed in studying more technical topics such as the accounting methods used for bad debts, inventory, and depreciation.

2. How to organize the initial discussion. Because ratios serve as summary measures that connect key elements of the financial statements, which themselves report the results of business decisions, it is useful to begin the topic with a review of some key business decisions. At a basic level, business decisions involve (1) obtaining financing that is used to (2) invest in assets, which are used to (3) generate revenues that (4) produce net income, which helps to satisfy those who provided financing in step (1). The relationships among these business decisions can be neatly illustrated as shown below.



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As the illustration shows, these relationships demonstrate how business decisions connect to key elements of the financial statements, and also provide a framework for three basic ratios used in financial statement analysis: (a) debt-to-assets, (b) asset turnover, and (c) net profit margin. Notice that these ratios measure the *links* between key business decisions and financial statement elements. Specifically, the debt-to-assets ratio measures the extent to which debt has been used to finance the investment in assets. The asset turnover ratio measures the efficiency with which the investment in assets has generated revenues. The net profit margin ratio measures the extent to which the company has been able to convert its revenues into net income. From this perspective, where business decisions determine the values of financial statement elements and ratios, students learn to view the ratios as measures to evaluate the results of key business decisions. They no longer represent mere formulas to be memorized. (Note that this framework is a variation on the DuPont model of financial statement analysis.)

3. How to illustrate their importance. To reinforce the perspective that ratios are measures of key business decisions, we have written a case to lead introductory financial accounting students through an analysis of the fraud committed by Aurora Foods—the St. Louis-based maker of Duncan Hines cake mixes and Mrs. Butterworth's pancake syrup. The fraud involved several financial misstatements, the most significant of which was the failure to accrue marketing costs that had been incurred by Aurora. Based on initial SEC filings and the subsequent restatements, we provide students with Aurora's total assets, total liabilities, sales revenues, and net income for the five quarters affected by the fraud. Using the fraudulent amounts initially reported, we demonstrate how to calculate the three key ratios (debt-to-assets, asset turnover, net profit margin). Students then are asked to calculate the ratios using the restated ("truthful") amounts and note the pattern of the ratios across the quarters.

What is unique about the Aurora case is the consistency with which the fraudulent reporting affected the three ratios across the five quarters, and how clearly it reveals an apparent attempt to *understate the debt-to-assets ratio*, *overstate the asset turnover ratio*, and *overstate the net profit margin ratio*. By asking students to speculate about possible motivations for the fraudulent reporting, instructors can help students to recognize that the ratios are not just formulas to be memorized. Students see that each ratio is an important measure of a key business decision, and they begin to appreciate the misguided motivation of the young CFO who fraudulently reported elements of the financial statements. Our experience in discussing this case, with over 500 sophomore students, has been uniformly positive. The real-world decision-making and fraud context help to engage students in learning what the ratios really mean—they are no longer mere formulas.

4. How to reinforce student learning. To further reinforce the use of ratios throughout the remainder of the term, we use a team-based project in which each team identifies an industry of mutual interest (e.g., hotels, clothing retailers, or grocery stores). Then, each member of the team obtains through electronic sources the recent financial statements of one publicly-traded company in the industry and creates a spreadsheet of the computations of key ratios. As a team, the individual member results are compared, with the goal of identifying similar trends and differences in the results of key business decisions across the competitors. From this hands-on activity, students apply their knowledge of how to compute and interpret ratios, and they broaden their understanding of business strategies across an industry. And, as is often the case, team members teach and assist each other, thus reinforcing learning even further.

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Copies of the PowerPoint presentation introducing the key business decisions (the figure above), and the Aurora case and its PowerPoint presentation are available from fred.phillips@usask.ca. A copy of the team-based ratio project is available from libby@ithaca.edu.

Individual-then-Team Quizzes in Principles of Accounting Courses

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Like most accounting faculty, I have a great desire that my students learn the material, and not merely go through the motions. A positive aspect of classroom learning is peer-to-peer instruction. There are instances when the gap of understanding is more easily bridged by peer explanation rather than instructor explanation. In keeping these thoughts in mind, I devised a system of individual-then-team quizzes for use in my principles classes that I have utilized successfully for the last five years.

At the conclusion of each chapter, my students take an open-book, open-note, ten-question objective (four true/false and six multiple-choice) quiz. Each student receives a sheet containing the questions, which is theirs to keep, along with an individual answer sheet. The students first take the quiz individually, restricted to a time limit of twenty minutes (I use a kitchen timer). After all individual quiz answer sheets are collected, the students team together in self-selected groups of two or three. The teams then answer the same ten questions, restricted to a time limit of ten minutes. The teams must come to a consensus for answers to place on their team answer sheet. This process helps students practice those important team player and negotiation skills.

I truly enjoy the sound of my classroom while students are taking the team portion of the chapter quizzes. All the teams are busy discussing among themselves the various questions they have just answered individually. I will often hear comments such as, "See, it's here on page 327," or "We worked out a problem like this in class and I wrote it here in my notes," or "First you take into account the number of shares currently outstanding, *then* you multiply those shares by the cash dividend per share amount," or "Darn! I didn't read that question carefully enough!"

After the teams have turned in their team answer sheets, we go over the answers as a class in order to provide immediate feedback. Most questions have been answered within the teams, but occasionally students ask me to clarify a statement or to work a solution out on the board. Some comments overheard during this time include, "Good job, you were right!" or "Sorry," or "See! I *knew* it!" or "Yes!" Overall, it is a positive process, and the students generally leave class in high spirits.

In grading the quizzes, I average the individual score with the team score. For instance, if a student received a score of 8 individually, and a score of 10 with the team, this student's recorded quiz score will be 9. I round up, rather than leaving half points in the grade book. Therefore, a student with a score of 8 individually and a score of 9 with the team will earn a recorded quiz score of 9.

As one might guess, the combined average quiz scores are generally higher than the individual scores. Earlier this semester I ran the numbers to see the differences in scores between individual-only quizzes and individual-then-team quizzes for 120 students in Principles of Financial Accounting. Forty-two percent of the students' scores stayed the same. Fifty-seven percent of the students improved their scores from individual-only to the individual-to-team average. Most students (seventy-seven percent) improved their individual-only score by one point (e.g. their recorded score improved from a 7 to an 8). In total, ninety-nine percent of the students either kept their original score or improved. Does this process contribute to grade inflation? In my estimation is does not. The average recorded quiz score for all students over twelve chapters is an 8.5. In addition, these quizzes constitute only 15 percent of their overall grade in the course.

The benefits of individual-then-team quizzes are apparent. Students previously fuzzy on certain con-

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cepts benefit from having them explained by a peer with a differing point of view from the course instructor. Students clear on certain topics have these concepts reinforced as they explain them to their classmates. (We know as teachers that there is no better way to learn than to teach.) Most students receive a score that is better, or at least not worse, than the score with which they started. Finally, students reinforce their team-building skills as they learn to negotiate and prove the correctness of their answers in the team setting.

Introductory Online Accounting Courses: 7 Steps to Success

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If anyone tells you that teaching an online accounting course is easier than teaching in a traditional setting, don't believe it for a minute. Although teaching online courses can be fulfilling, challenging and just plain fun, this type of teaching media can also be time-consuming and frustrating for students and faculty alike. I had always wanted to teach an online course and had the opportunity at University of Houston-Downtown to create two WebCT online accounting courses. I had been teaching and conducting research on online accounting courses for several years and two years ago decided to find out personally what it would be like to be a student taking online courses and over the next year and a half completed five online graduate accounting courses at two different universities. Based upon my research in this area and personal experiences, I have compiled a list of seven suggestions for faculty to offer more successful online accounting courses.

1. **Don't open a course until ready**. It can be extremely difficult for students to plan ahead if their professor continues to add or change due dates, assignments, tests, etc. especially if some of those assignments must be proctored and the student needs to make plans well in advance. This suggestion will be especially important for non-traditional students who must balance family, school, work and other important responsibilities and struggle to complete everything on time.

2. **Keep it simple.** Beware of too many FAQ's. A few FAQ's would be fine; however, when students are faced with 15+ FAQ's, they may not use this helpful area and begin emailing the professor and might take out their frustration on the professor.

3. **Prepare them with practice**. Be sure to offer many student practice exercises with answers. Depending upon learning style, most students need to practice the exercises and problems in introductory accounting courses and it can be extremely frustrating for students to work hours on their homework to find that they were doing it wrong. Many publishers offer homework packages whereby students get instant feedback on their homework assignments and can correct any errors found. For my classes, students are provided with extra accounting exercises on Excel that can be emailed or uploaded for student use.

4. **Give frequent feedback**. Feedback will be especially important to online accounting students (Katz, 2002). For one graduate class I enrolled in, I did not know any of my grades until final grades were posted. The professor also did not answer any emails pertaining to grades. Because I learned how awful it feels to wait so long for feedback on assignments, I make sure that my online students get appropriate feedback on grades, assignments, discussion questions, etc. within one week. In addition, I usually post grades and/or email their scores within three days even on weekends.

5. **Be consistent.** Avoid adding assignments once the course has begun**.** In one online accounting course I completed, the first day of class, I printed off all the instructions, the calendar, assignments, etc. In the middle of the semester, the professor emailed me asking why I did not complete an assignment. The assignment wasn't completed because the professor added the assignment four weeks into the class.

6. **Avoid deleting assignments once course has begun.** Even when a professor is trying to be kind and eliminate the burden for students, once online faculty set up an assignment for an online class, they should not remove any assignment. As many students work, have families, take more than one class, they

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will be working on some tasks in advance. In one of my online graduate accounting classes, I completed early the final exam that the professor gave us the first day of class. Three quarters through the semester, the professor told everyone that students were not responsible for the final exam. It was very frustrating for students who completed the work and found that all their time and effort would be for nothing (Hogan, 1997; Vamosi, & Pierce & Slotkin, 2004).

7. **Be yourself and let your personality show through**. If you have a sense of humor, don't be afraid to show the students via email, feedback on assignments, etc. It can be very difficult for students taking online classes particularly if the faculty member only gets to meet students during proctored activities. If faculty members' interactions include their personalities, students might feel less isolated and alone because they get to know the teacher. In addition, be sure to schedule "virtual office hours" where the student can come to your office or call you on the phone. Sometimes explanations will be more effective in a different media than email or chat rooms.

The first two online accounting courses I created, the texts did not include test banks and/or web-packs or e-packs, and included minimal instructor's manual information. This meant I had to create 700+ test-bank questions in WebCT. In addition, for two texts, I had to create Power-Point presentations for 45 chapters. Most publishers now provide excellent supplemental materials geared toward online classes such as web sites offering quizzes, Power-Point slides, Internet exercises, etc.

Creating, teaching, and maintaining online courses can be a lot of work, but the time and effort expended will truly be worth it…for the faculty member and the students who tremendously benefit from this type of teaching media (Carnevale & Olsen, 2003).

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Principles of Accounting Cases--Keep It Local

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"I figured that accounting would be a boring class with most time spent learning what the heck is a debit and credit, but I was wrong. When I came to the first class, we were learning about starting a sports memorabilia business. It was then I knew that this class was going to be interesting." This type of comment is not unusual of student responses on mid-term evaluations in my principles of accounting class.

In the first day of the principles of accounting class students meet and greet others and then introduce their mates to the whole class. After this ice breaker, we make plans to start a business. I begin by explaining that we are going to establish a new business selling sports memorabilia—everything from sports cards and bobble heads to model NASCAR cars. However, I make it clear that our main line of business is selling memorabilia of our most famous local sports hero—Roger Maris. The business is called Roger Maris Collectibles (RMC).

Next, I lead a discussion regarding many of the issues that should be considered when starting a new business. Some of the several issues that students identify are: how many competitors are there, where is a good location for the business, do we need permits to run a business, and how much money do we need to get started? These questions lead to further discussion and some students are willing to share their own real experiences with start-up businesses such as lawn care and house painting.

When the discussion of students' personal experiences begins to wane, we refocus on the task at hand. We make decisions to rent space in a large shopping mall, purchase some display cases and shelving, purchase inventory, insure our inventory, hire a student helper, acquire a loan from a local bank, and invest a good chunk of the owner's (my) savings in the business.

As owner, I insist on keeping an accurate record of my assets and the many other transactions that occur. We start with a spreadsheet (and eventually graduate to T-accounts) listing the assets, liabilities, and equity of the business. At this time it's necessary to define several terms, explain the balance sheet equation, and answer questions. For the first month of operations, the business has a limited number of transactions. Store space is rented for a year, inventory is purchased with cash (we discuss why it is difficult for a new business to get credit), insurance is prepaid for a year, equipment is bought, a loan is obtained from a local bank (with my home as collateral), advertising is purchased, and some sales are made. We determine the average inventory mark-up and compute the cost of goods sold percentage.

Using the first month's information recorded on the spreadsheet, we compile an income statement, statement of owner's equity, balance sheet, and statement of cash flows. We continue to build on this model by adding more accounts and transactions throughout the semester. As we encounter new topics in the text, such as accounts receivable or budgets, these are integrated into the RMC business. Thus, throughout the semester, we draw on the details of monthly transactions to reinforce the concepts from the text. The effects of transactions on financial statements, including the statement of cash flows, are reviewed repeatedly.

As the old saying, "Remember, you're unique, just like everyone else!" reminds, this teaching method is not new or exceptional. Most principles texts include examples of similar business transactions or have practice sets. However, the examples often have little connection to students' reality or they are overly complex with the dollar amounts so large that cumbersome calculations distort the intent of the example. In

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this class, students have a connection to the business from the very beginning. Most students enjoy sports and many have collected memorabilia. By keeping the connection local (using a well-known icon in our case) and by keeping the business transactions simple (text examples often are often unnecessarily complex) students stay interested and attentive.

A Simpler and Quicker Way to Teach Debits and Credits

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Based on a nonscientific multi-semester survey of students in the first principles of accounting course, it seems that the most worrisome part of the course a priori is the learning of debits and credits. Because of that feedback, a new approach to the teaching of this topic has been developed.

The goal of this new approach was to simplify, demystify, and remove the focus of the students from debits and credits as an important topic in the course. Instead, the approach was to treat debits and credits as tools to be used throughout the course, just as a plumber would use a wrench or a teacher would use chalk.

This new approach to teaching debits and credits takes only about 12 minutes of class time, after which the students are introduced to journal entries and the applications of what they just learned. The teaching of debits and credits is broken down into two aspects: what they are, and what they do. Focusing on these two aspects serves to demystify debits and credits, and helps students understand the issues more clearly and to put them into the proper perspective.

What They Are

When students were asked what debits are, the response was often "increases in assets." A comparable answer of "increases in liabilities" was given as a definition for credits. Thus, the first goal was to distinguish "what they are" from "what they do." The earlier response was clarified as being what debits do, not what they are. Ultimately, the definition of debits was given as left side, and credits as right side. Left side and right side of what was left for the later discussion of journal entries and of ledgers, specifically T-accounts.

What They Do

Teaching students what it is that debits and credits do has always been problematic. The typical texts used often spend three pages or more going over this, only getting the students more confused as they seek to put the textbook discussion into a coherent whole. As a result, the 2-by-2 matrix shown below was developed. Students were instructed to ignore the relevant pages in their text and to memorize, and practice using, the 2-by-2, which is what it came to be called.

2-by-2 Matrix

		Account Type: Expenses / Assets	Account Type: Revenues / Liabilities & Equity
Movement	↑	Debit	Credit
	↓	Credit	Debit

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The application of the 2-by-2 is very easy. If a student is faced with journalizing a transaction where a cash sale is made, for example, they first do the analysis. By answer the questions "what did you get" and "what did you give up," students were able to focus on the relevant accounts. In the case of a cash sale, the answer to the first question is cash is received. The answer to the second question is goods are given up. This is represented as revenue, which is rising. The students are then shown how to use the 2-by-2. They know that cash is an asset, and that the asset is rising. By putting one finger on the word "asset" and another finger on the rising arrow, they find the quadrant at which the two intersect, which indicates a debit. Thus, they should debit the relevant account, which is cash. To get the other part of the entry, they are told to put a finger on the word "revenues" which are increasing, so their other finger goes on the rising arrow. The intersection indicates that the relevant account, revenues, should be credited. At this point, they have all the information needed to do the journal entry for this transaction which consists of a debit to cash and a credit to revenues. Once they have practiced with the 2-by-2, deriving the journal entry for any transaction is easy.

This brief article has presented a different method of teaching debits and credits to introductory accounting students. The idea is to reduce the focus on the concepts by teaching the basics and moving on to their uses quickly. By limiting the teaching to about 12 minutes, the signal is sent that these are important, but only as tools, not as an end in themselves.

A Peer Evaluated "Real World" Annual Report Project in Introductory Financial Accounting

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The best idea I have for teaching introductory financial accounting is to use an annual report project to force students to become users of financial statements and, as a result, better accountants. This is not a new or novel approach. However, I believe I have honed my execution of the project over several semesters and bloodied several students in the process. Through this essay I share what I have learned with other accounting educators.

The most important factor of my financial analysis project is the requirement that each student obtain a publicly traded company's annual report for the analysis. This provides a powerful learning experience for students who are challenged to "be active participants in the learning process" as encouraged by the Accounting Education Change Commission as far back as 1990. I provide detailed written instructions at the beginning of the semester about what a publicly traded company is and how to obtain an annual report. The assignment is available for review at http://www.business.umt.edu/Faculty/chaney/BADM_201/assign.asp

I place a deadline on the choice and make the choice first-come, first-served. Only one company may be chosen by a student. For administrative reasons, I have students post their choice to Blackboard. It works quite well because students can easily see what companies have already been chosen and I can see if the students have posted their choices by the deadline. It is vitally important to motivate students not to procrastinate. Students do not appreciate the time lag involved in obtaining an annual report, nor how quickly the annual report will be needed in class.

I constrain the students' choice of company to a particular industry. If students are analyzing companies within the same industry they can confer with their peers for comparisons. I choose retailing because it is the industry used most frequently for examples within the course. I require students to bring their annual reports to class on specified days. The students calculate textbook ratios from their companies' reports. They shout them out and I write them on a white board. The students get a sense for what is "average" and we talk about why the outliers might be so far from average. These discussions provide useful data for the analysis paper due at the end of the semester.

Beginning accounting students are certainly not adept at locating accounting numbers in the financial statements. In fact, they often have a hard time finding financial statements in an annual report! Instructors who undertake an annual report project have to commit class time to perusing the annual report. On the first day of class, I bring a stack of annual reports and hand them to groups of students. I use the small group exercise as an ice breaker for the students and for the annual report! I tell the students to find the three basic financial statements and the auditor's opinion. Then I walk around the class helping each group achieve its mission. As the semester progresses and we start to calculate ratios, I walk around the class to help students find specific accounting numbers for their ratios. I allocate extra class time just to walk around and help students locate the numbers.

By the end of the semester the students have studied all the relevant financial accounting topics necessary for survival. I require that they choose five ratios that are useful for analyzing the financial health of their particular companies. More than five have been studied during the course of the semester but they must use their critical thinking skills to choose the most relevant. The students are required to explain how each ratio was calculated and provide an interpretation, including a comparison. The comparison could be to a

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similar company's ratio or to an industry average. Remember that we calculated ratios for other students' companies throughout the semester.

Students are required to provide an evaluation of the financial health of their company. The requirement forces students to assimilate value judgments made about individual ratios into an overall summary, and the analysis must be brief and well-written. I believe that communication and analytical thinking skills must be practiced to be sharpened. Professionals continually encourage educators to develop these skills in our students.

A unique aspect of my financial analysis project is its peer evaluation component. Students are not finished when they turn in their two-page papers. On the due date, students come to class with papers and annual reports in hand. I collect the papers and redistribute them amongst the class. Each student reads and grades/reviews a peer's paper. The grading rubric is distributed with the papers and has been previously disclosed to the students. (It is available at the website mentioned earlier.) I allocate 30 points for ratio calculation and interpretation and 10 points for communication. The peer reviewer will be held accountable for how well he/she grades *and reviews* the student's paper. The rubric for reviewing has also been previously disclosed (and is available at the website). The peer reviewer can earn up to 10 points for properly assigning grading points, justifying the grading points, and providing constructive criticism on the peer's analysis paper. The objective of the last item is for the peer reviewer to gain a greater depth of understanding by thinking deeper about the analysis. It is important to emphasize the *constructive* nature of the criticism, however. I have found that students who have spent the semester working hard on their projects tend to be very harsh with their peers who seemingly have not. I collect all the papers, with their peer evaluations, and review all. I correct any grades of errant peer reviewers and assign peer review grades. While I do spend time reviewing peer-assigned paper grades and assigning reviewer grades, I spend less time overall than I would if I graded all ratio papers individually. More importantly, I believe the learning experience is richer with peer evaluation.

I am a strong believer in financial statement analysis projects in introductory financial accounting courses. Accounting and business students take a user focus to explore accounting numbers in the financial statements. This allows them to gain greater insight into accounting's usefulness within a business context. As useful as the project is, it will only work well if it is treated as a semester-long project. It cannot be relegated to a chapter on financial ratios at the end of the semester. Students need guidance in every chapter that introduces a new ratio. Calculation is but a minor part; interpretation is what vexes the introductory student. The instructor must make a commitment to discuss each ratio's basic intent and provide examples. Otherwise, the instructor will face confused, frustrated, and hostile students when the projects are due at the end of the semester.

Reaching Out to Teach Introductory Accounting Courses

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When I teach introductory accounting, I have the privilege to present to my students the fascinating and dynamic world of accounting. While my teaching opportunity is rewarding, making the accounting profession seem relevant to the students is easier said than done. Therefore, I attempt to breathe life and excitement into my classes by identifying and addressing the following three areas:

1. The students' subject interest level may not match my subject interest level.
2. Accounting and non-accounting majors have different learning needs.
3. "Show and Tell" aids in student understanding of introductory accounting concepts.

The students' subject interest level may not match my subject interest level.

I begin the first class of the semester by saying to my students that I am proud to be an accountant and I love being a part of the accounting profession. I believe that simple phrases like these should be stressed to foster a positive learning environment. Our present educational environment demands and deserves a positive attitude when dealing with our students. Positive attitudes can also aid understanding and increase the levels of learning when students are introduced to new subjects and ideas.

Every semester, students from all walks of life, and a variety of backgrounds, enter into my classroom. I also have to deal with various levels of student interest in my course. Their interest levels run from "I get to take this course" to "I have to take this course." To address the interest issue, my students are given long-range visions of the accounting profession. These long-range visions are as student specific as possible so that the students may understand that accounting can be of specific benefit to them. Once the students understand the long-range visions, I have seen their attitudes start to change. In addition, when these long-range visions are accepted by the students, their course participation level also seems to increase. While the individual student's level of subject interest may not reach my level, any increase in interest is a positive step for student learning in introductory accounting courses.

Accounting and non-accounting majors have different learning needs.

All too often, introductory classes are taught as though there is just one student audience receiving the instruction. In a simple division of my classes, I usually find that my students are concentrated into two primary learning groups. One group is comprised of accounting students and the other group is the non-accounting students. After I recognize the two learning groups, I focus my instruction to include the specific learning needs of both groups.

The accounting major's learning needs include understanding the fundamental course principles, obtaining the ability to apply the knowledge learned to this course and to future courses, and how the knowledge will be applicable to their careers in public or private accounting.

Meeting the non-accounting majors learning needs requires obtaining background information on the students themselves. During my first class, I conduct a student/class interaction where all the students volun-

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teer a little background information about themselves. From this background information, I incorporate the students' relevant past experiences into my classroom. For example, after one such student/class interaction, I had a non-accounting major student indicate that she made wedding dresses for a living. Rather than just discussing "widgets" or other generic accounting items, I was able to mix into my discussions specific accounting data applicable to the wedding dress business. This and other real-world examples allow me to personalize my accounting instruction and to energize the students to participate in the class. The students quickly understand the application of the fundamental accounting data and how the data compliments their previous or current use of accounting information.

I also use real-life examples to demonstrate how accounting information will affect the non-accounting students in the future. Understanding financial statements takes on a whole new meaning when the students are walked through examples such as the payment of bonuses. The students become very interested when it comes to the discussion of money. I stress to the non-accounting majors, the phrase "retain enough knowledge to ask the proper questions." Therefore, no matter what is being calculated, the non-accounting majors will know enough about accounting to ask questions that would verify that the accounting department is generating accurate results.

"Show and Tell" aids in student understanding of introductory accounting concepts.

I must be aware that the examples I use in class may not always make sense to the students. This is especially important when the students do not have relevant experience or a reference point applicable to the accounting information that I am covering. With materials obtained from local businesses, I attempt to meet this issue with a series of "show and tell" demonstrations in the classroom. For instance, when materials and scrap are discussed, I bring in a skin of cow leather and discuss with the class the concept of direct materials and show them what scrap can be. When discussing inventory issues, I bring in some skeins of yarn (direct materials), knitted hats that are partially done (work-in-process), and finished knitted hats (finished goods).

I also use bottled water as a "show and tell" inventory product item. I wasn't sure how responsive the students were to my "show and tell" items until, after class, a professor noticed my water and made a comment about how teaching must be a thirsty business. A student immediately replied, "Oh no sir, that is our inventory." "We are in the bottled water business." That student's reply made my day! While a sample of one is not statistically sound, it certainly is satisfying.

Conclusion

While my priorities are to teach accounting and to keep the students motivated, I should also ensure that my teaching is aimed at the multiple student audiences. In addition, I need to get the students excited, meet the different student's learning needs and use appropriate learning methods to compliment the different knowledge bases of the students. And, by the way, did I ever mention that I am proud to be an accountant and that I love this job!

Integrating The Introductory Managerial Accounting And Introductory Business Information Systems Courses Using A Flexible Budget Case

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During the last three years our College of Business revised its curriculum with the goal of integrating the core courses within the program. A strategy used to accomplish was designing each course's material so that it stresses the enterprise as a whole instead of emphasizing the separate functional or knowledge areas of business. One case that has been successfully used to do this within the introductory managerial accounting course is Pathfinder, a flexible budgeting case.

Pathfinder was designed to promote and integrate some of the learning objectives of both the introductory managerial accounting course and the introductory business information systems course. The goals addressed from managerial accounting include having students learn to: 1) develop responsibility reports for an investment center, 2) apply the cost-volume-profit model to budgeting, 3) use of the concept of relevant range within a flexible budget and 4) model linear and nonlinear cost functions. The goals incorporated from the business information systems courses include: 1) application of sound model building techniques, 2) improvement of logical thought through in the development of equations and use of 'if" functions, 3) use of named ranges and table lookup functions within a spreadsheet, 4) application of numeric methods to business models and 5) use of named cell references to other spreadsheet folders. These courses are taken together during the same semester with students assigned to a cohort so that they are with the same group for both classes.

The case was designed using Visual Basic Applications (VBA) for Excel so that the case data would be unique to each student but having the same learning objectives. This promotes collaborative learning while discouraging the widespread practice of shirking student responsibility via the sharing of a common correct answer. When the case file is first opened the VBA program solicits information concerning the student's name, student number and class section. The case is then initialized for that student providing a unique set of data and instructions which cannot be changed. Each student must then apply the concepts mentioned above to develop a flexible budget for the Technology Division of the Pathfinder Corporation. Since each budget requirement is unique, the students learn more because they will be compelled to personally complete the assignment. The collaboration that occurs between the students is at a higher level because the information that is shared deals with application of concepts instead of the correct answer.

The case requires the students to develop a model that will accommodate a number of variables that can be changed by the spreadsheet's users and then present a flexible budget plus a four year forecast based on those assumptions. These variables include the 1st year's unit sales, unit price, direct labor and direct materials cost per unit, indirect labor including a stare step cost function and cost constraints, mixed variable selling and administrative expenses, as well as fixed overhead, selling and administrative expenses, and average operating assets. The case also requires the calculation of budgeted power costs based on actual units produced where power costs are based on real life utility rate tables.

The students utilize proper spreadsheet design techniques and functions to complete the flexible budget. The spreadsheet skills are taught in the introductory business information systems course before the case is assigned and then applied in the managerial accounting course. Variable and fixed cost behavior is

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modeled using equations and 'if' functions. Named ranges are required for any formula or cell that the student develops. Modulus division functions are used to model the stare step indirect labor costs while table lookup functions are used to calculate the base power cost as well as the marginal power costs in excess of the base amount in the utility rate table. As a result students are presented with the concept that business skills are not functionally separated but should be used together to optimize enterprise performance. Preliminary evaluations of the case indicate that students are learning more with this unique-to-student case than with a similar static case.

The actual case file is available on line at http://www.courses.cmich.edu/acc202/. An additional file was also created to grade the students' work. The Visual Basic algorithms were designed to improve feedback response time, efficiency and accuracy over manually graded static cases. The case grading file is available to faculty who submit a request on their college letterhead to Rob Bromley, 326 Grawn Hall, CMU School of Accounting, Mt. Pleasant, Michigan - 48859.

Solving Bank Reconciliations: A Code for Success

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Many of the issues and concepts of accounting are completely foreign to the typical young student who is learning the subject for the first time. Matters such as depreciation, inventory valuation, accrual concepts etc. have not formed part of their lives; for this reason we as instructors need to find ways to help our students negotiate this crucial intellectual leap.

One topic that students often find new and challenging is that of bank reconciliations. Many young people taking our introductory course have not yet needed to manage a bank account themselves, so the need for accuracy, accountability and control comes as something of a surprise to them. They do not realize that two sets of records are kept simultaneously for any business bank account, one by the company as owner of the account, and one by the bank as its custodian. As well, after students have learned how to create a bank reconciliation, they need to understand the requirement that a company's accounts must be adjusted on the basis of certain elements in the reconciliation.

The reality of compiling a bank reconciliation can be very complex, as we all know. A careful comparison must be made between the company's bank statement and its own chequebook or cash disbursements journal, and items appearing in both sources are ignored, leaving the items known only to one entity (bank or company) to be entered onto the reconciliation. Most textbook bank reconciliation questions (with some notable and commendable exceptions) leave out this time-consuming comparison step. The pre-reconciliation cash balances for company and bank are provided, followed by a simple list of all the items that will ultimately appear in the reconciliation. It is from this list that the student is meant to prepare the reconciliation, as well as any required adjusting journal entries (always involving the Cash account) that the reconciliation brings to light.

Students often have trouble interpreting the list of reconciliation items, both in terms of whether a given item should appear on the company or bank side, and whether the item requires adding or subtracting from the chosen side. To deal with this issue, I have often taught bank reconciliations as coding situations, using a simple two-by-two matrix that has proven to be quite effective. As they examine the various reconciliation items, I have the students ask themselves two questions:

a. As of the date of the reconciliation, which "side" did **not** know about the existence of the item? The two possible answers are B (bank) and C (company).

b. At the time that the appropriate "side" **does** find out about the item, will combining it with their cash position cause the cash balance to increase or decrease? In other words, is this item a newly-discovered cash inflow or cash outflow? The two possible answers here are + and -.

We therefore have four different possibilities, according to the code matrix. An item will end up as one of the following:

1. B+, an item of which the bank was unaware on the reconciliation date, but when it is finally seen, will cause the bank to increase its recorded balance in the customer's deposit account.
2. B-, an item of which the bank was unaware on the reconciliation date, but when it is finally seen, will cause the bank to decrease its recorded balance in the customer's deposit account.

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3. C+, an item of which the company was unaware on the reconciliation date, but when it is finally seen, will cause the company to increase the balance in its Cash account.
4. C-, an item of which the company was unaware on the reconciliation date, but when it is finally seen, will cause the company to decrease the balance in its Cash account.

The coding process described above is the conceptual part of solving the problem. Once this has been accomplished, each item having received a code, the remaining work is purely mechanical. The company's pre-reconciliation balance is recorded, followed underneath by the C+ items added in, and the C- items subtracted. This creates a new adjusted balance for the company's Cash account. The same procedure is repeated for the bank figures, using the B+ and B- items. If everything has been thought through correctly, the two adjusted balance totals are identical. Students can then prepare journal entries for the C side only, recognizing that in a C+ item cash is increasing, and so will be debited, whereas in a C- item cash is decreasing, and so will be credited. The account needed on the other side of each entry depends, of course, on the situation described.

Students always find error corrections to be the most difficult items to codify. It is also apparent that when it is a bank error, students are more willing to try to have the company adjust its records to match those of the bank, rather than recognizing that the bank requires notification that the error has occurred.

To sum up, my little coding matrix seems to help students clarify their thinking around matters related to bank reconciliations. Once this approach has been mastered and successfully used with standard textbook problems, the students need to be exposed to a full-scale reconciliation problem. Forcing them to sort through the many items common to a real bank statement and a company's cash disbursements record in order to find the reconciling items will develop their eye for detail, and make the coding matrix step appear quite easy by contrast.

Forensic Accountants: CSI's of the Corporate World and the Importance of AIS in Forensic Investigation

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Introduction

Fraud can include financial crimes such as identity theft, collusion, corporate fraud, embezzlement, and use of tax haven countries for illegal activities. In this age of high technology, fraud investigators can no longer be satisfied with just auditing or accounting skills, these investigators should be trained as forensic accountants (Manning, 2005; Ramaswamy, 2005).

Researchers note the importance of forensic accountants thoroughly understanding the AIS system as both small and large businesses will utilize some sort of AIS software or spreadsheet packages (Bruckoff, & Kramer, 2005; Derby, 2003; Williams, 1997). The thorough understanding of AIS would be especially important when investigating fraud and who in the organization might be capable of bypassing or removing red flags from the AIS system (Kranacher & Stern, 2004). Red flags in AIS would be internal controls within and outside the AIS software that indicate possible suspect transactions (Manning, 2005).

Forensic Accountant Understanding of AIS & Audit Procedures

In addition to AIS knowledge, the forensic accountant should also be familiar with software audit tools which utilize auditing through the computer and the AIS software (Jackson, 2004). Wells (2005) indicated how easily evidence, especially AIS data can be lost if the records or transactions cannot be safeguarded. Evidence in the form of AIS data need to be relevant, material, and competent and Manning (2005) stated in his book that the best evidence will be the original document itself. Also admissible in court would be charts, schedules and summaries of data. The forensic accountant should thoroughly understand the AIS system in order to produce such evidence as well as explain about the evidence in court. In addition, the chain of custody can be very important because the investigator needs to prove that the evidence would be in the same condition as when the crime was committed. This would include AIS data as well as other evidentiary material and the investigator should be able to identify the evidence by some sort of mark or notation made upon retrieval of the evidence

In a recent article Craig and Reddy (2004) stated that Australian judges believed expert accounting evidence to be the most difficult evidence to evaluate adequately especially AIS accounting data. The authors suggested ways to improve the process of expert accounting evidence testimony which included communication skills training as well as financial training not only for the forensic accountants but for the judges as well. The authors believed that it would be the forensic accountants' responsibility to communicate accounting and AIS data accurately and clearly to the court.

Qualifications will often be determined on a case-by-case basis with the judge making the expert witness determination at the time of trial and it would be quite a loss for the prosecution if important evidence provided by the expert witness would be set aside because of expert witness competency issues (Heitger & Crumbley, 2005).

Fraud investigators will typically spend weeks working to prosecute a case. Forensic accountants must be well trained in the rules of evidence, financial data, AIS software, communication skills as well as be

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able to convince a judge that they should be viewed as an expert in their field. Since most of the cases use evidence consisting of accounting data and specifically accounting data retrieved from an AIS system of some sort, these investigators must be well versed in AIS and AIS documentation, processes, and internal controls of AIS systems. In addition, forensic accountants need to not only be able to understand AIS data, but they must also be able to articulate and explain sometimes highly technical and complex evidence to the court in simple enough terms to be understood. Perhaps the most successful fraud investigation would be when the forensic accountant's existing skill set is matched with the nature and operation of the fraud examination under investigation.

The importance of forensic accountants' understanding of AIS during their financial investigations cannot be over-emphasized. Many times the successful prosecution of a fraud case will heavily depend upon the forensic accountants' understanding of not only AIS but also the ability to convince a judge of their expertise in sometimes complicated and technical AIS evidence.

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