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TRENDS: TROUBLESHOOTING THOSE DIFFICULT CLASSROOM ISSUES

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TRENDS: TROUBLESHOOTING THOSE DIFFICULT CLASSROOM ISSUES

INTRODUCTION

This Trends contains ideas for handling common problems that arise for many instructors of the first accounting course. These suggestions have worked for others. Your own intuition, experience, and creativity in handling classroom situations will be far more valuable than trying to copy someone else's style. As with everything in this manual, we suggest that you adapt and modify these suggestions to fit your needs and presentation style. This Trends article is adapted with permission from the excellent Course Manual to accompany *Becoming a Master Student*, Seventh Edition, by David B. Ellis, pp. 51–60. Copyright © 1994 by Houghton Mifflin Company.¹ Too often we lose touch with excellent materials just because they are “old.” I think you will find many useful ideas here.

STUDENTS RESIST THE ACCOUNTING COURSE

Sometimes students resist the course. This is especially true if the student knows someone who has had a bad experience with the course or has math anxiety. Here are a few suggestions for dealing with resistance.

Sell the Course At the beginning of the course, sell students on the benefits they will receive. They will gain a better understanding of accounting as a language of business. They will learn about common business operations. They will improve skills that you have selected for development (e.g., communication, interpersonal, and/or personal skills). Talk about how the knowledge of accounting concepts, methods, procedures, or systems has influenced you or others around you. Persuade students that accounting is essential for owning or operating a business.

Bring in a Guest Speaker Students are impressed by businesspeople who discuss actual business experiences. An experienced businessperson can add credibility to your course by sharing experiences in which accounting (information, systems, procedures, etc.) helped the business.

Distinguish Between “Liking” and “Benefiting” Many students don't “like” accounting. Ask students *what* they don't like. Often, students dislike accounting courses because the courses require self-discipline, time management, and self-directed learning. Explain how these requirements will benefit them in other courses and in their careers.

STUDENTS DO NOT PARTICIPATE

As you change to a more active learning environment, you want your students to participate more in learning activities, such as class or small-group discussions, demonstrations, role-playing, simulations, or games.

¹ This book is now in 15th edition published by Cengage Learning.

Review Advantages of Full Participation Discuss what students will gain, what obstacles they might overcome, and how the learning activities will help them learn specific output skills. Some will be hesitant to risk making a foolish comment or participating for the first time. Explore how much more they will learn by taking the risk.

Be Structured Give highly structured directions that lead students through the learning activity step by step. Also give them specific grading criteria for those activities you choose to grade. This increases student confidence with nontraditional assignments.

Demonstrate Use volunteers or model what is expected yourself. Demonstrate the whole learning activity if necessary to clarify what is expected and to help students feel more comfortable with it. For example, demonstrate a mock interview to prepare students for interviewing a businessperson.

Grade Students on Participation Let students know from the beginning that they are expected to participate in learning activities. You may want to establish a participation grade that is contingent on being involved in these activities.

STUDENTS COMPLAIN THAT THE COURSE REQUIRES TOO MUCH OF THEIR TIME

Suggest the Opposite Tell students they can't afford not to have time. Accounting courses help them discipline themselves, stay focused on the task, and review their own time management skills. They have the opportunity to overcome their difficulties in any of these areas. By improving these life skills now, they will more effectively manage their time for this course and future courses.

Discuss Time Management Find and distribute materials that talk about time management. Have students develop a time management program for the accounting course or the semester. Show them how they can succeed with some careful planning.

STUDENTS ARE CHEATING

Review Goals Have a class discussion about cheating, how it helps, and how it hurts. Ask how cheating relates to students' goals for school and future employment.

Have a Conference If students are cheating, call them into your office.

Change Testing Conditions Separate students. Have students monitor the class. Prepare different test formats and alternate the tests when they are distributed.

Allow Students to Work in Teams You can occasionally design tests that require some group discussion and group decision making.

STUDENTS DO NOT ATTEND CLASS

Call Them Be sure that your records include a telephone number or address for each student. A contact works best if it is done in a completely nonthreatening way. Avoid making judgments. Remind the student that your purpose is to help him or her succeed and that you are concerned about his or her performance.

Invite Them to Contact You Recommend to students that they stop by your office or call you. An interested teacher is often all that is needed to get a student back on track.

Administratively Drop the Student from Your Class Some learning institutions ask instructors to administratively drop students from the class roll if the student is clearly not attending classes. Some students do not drop a class because they will lose continued financial support if they do not attend. The act of dropping the student from the class notifies the supporting agency of the student's lack of responsibility. Make sure to keep adequate records to support your actions if you are required to administratively drop students.

SEVERAL STUDENTS ARE FAILING

Hold a Conference Set aside time for a face-to-face talk with each student about your expectations and the student's expectations for the class. There may be confusion about what is required. Often, homework is neglected because of other difficulties in a student's life. A committed listener is sometimes all that is needed. If more help is appropriate, refer the student to other resources.

Remind Students Review the requirements for passing the course and remind students that procrastination can be harmful.

Detach Allow students to make their own decisions and to accept the consequences. Students can take responsibility for their choices. Beware of your desire to take care of them. Some students will choose to fail.

Examine Your Standards Determine whether you have set realistic goals for the class. If 50 percent of the class is not comprehending the material, look at your teaching methods, testing style, and classroom atmosphere. Feedback from students in the form of anonymous evaluations can be helpful, even if a little painful.

STUDENTS COMPLAIN ABOUT GRADES

Students Need to Know Every accounting instructor must deal with students who are unhappy with their grades. Remember that grading is serious business and that students have a right to understand the grades they receive. Include your grading criteria in your syllabus and on each writing, oral presentation, or research activity assignment. Fully explain the reasons for grades on your evaluation form. Use constructive

comments. Keep in mind the pressures that students are under to make good grades, and be as tactful as possible when they are upset.

Discuss Rather Than Negotiate Grades Establish a policy of being willing to explain and discuss but never to negotiate grades unless it is obvious that you have made an error. Tell students to see you as soon as possible after receiving grades they are unhappy with, and impress upon them that the consultations are to help them improve their future performance in your class.

Frequent Feedback on Student Grades Frequently post grades or allow students to visit you to review their grades so that students are not unpleasantly surprised by their grades at the end of the course. In this way, errors can be corrected quickly, and direction can be given to help them improve.

THERE IS TOO MUCH MATERIAL TO COVER

Correct! The accounting textbook covers concepts and techniques for a wide range of topics. End-of-chapter materials offer many approaches to learning.

Select the Best You don't have to cover it all. Select those concepts and techniques that you believe are most relevant to accounting in business. Then select the best assignments to help students learn. Covering the most important items in depth might be more useful than trying to cover all of the material.

Collaborate with Others Other instructors may feel the same way. Get together and brainstorm an approach that all can use to manage the material. Share in the planning of course topics, instructional strategies, and testing material.

GRADING THIS CLASS IS DIFFICULT

Start with an "A" Tell students that they begin the term with an "A" and then tell them what they can do to keep it.

Keep It Simple Keep your grading system simple. If you don't grade everything, define the requirements for successful completion.

Get Students Involved Students benefit by (1) seeing that other points of view can be taken in an assignment, (2) noting that others may be better or worse in written communication, and (3) learning to constructively critique other people's work. Have students turn in a written evaluation of their own performance, giving themselves a grade based on course requirements. Have students grade each other's writing assignments.

STUDENTS NOT RESPECTING YOU AS AN INSTRUCTOR

Gross insubordination is less common than most beginning instructors tend to fear, but it does happen from time to time, especially with younger teachers and graduate

assistants. Make no mistake, when students refuse to shut up or to quit flirting or behaving in other distracting ways, they are challenging your authority. Such students create an unpleasant classroom atmosphere, which is unfair and counterproductive. Avoid a heated confrontation in front of your other students. If things get out of hand, pull the problem students aside and tell them that you find their behavior disconcerting and will not tolerate it in the future. If they keep pushing it, suggest a meeting with your course director or department chair.

If this happens to you very often, some healthy self-evaluation may well be in order. Beginning instructors have legitimate power because of their position, but this doesn't mean automatic respect. A teacher must establish ethos to be effective.

Do You Come Across as Having Power? *Power* is not a four-letter word. Depending on its type, it may be perceived positively or negatively. Power in the classroom is usually one of five different types:

1. Coercive power is based on the teacher's ability to inflict punishment. It is negatively associated with motivation and with cognitive and effective learning.
2. Reward power is the flip side of coercive power. Although not directly associated with motivation or with cognitive or effective learning, it may be used effectively to sustain desired behaviors while a teacher builds a base of referent or expert power.
3. Legitimate power is power vested in the position, not in the person holding the position. Reliance on legitimate power does not result in high levels of motivation and cognitive or effective learning.
4. Referent power is based on likability and identification. It is highly related to motivation and to both cognitive and effective learning.
5. Expert power is based on the perceived competence of the teacher. It is positively related to motivation and to both cognitive and effective learning.

As an instructor, you have immediate access to legitimate, coercive, and reward power, but those alone are not enough. To be an effective teacher, you must work on developing your referent and expert power base. Here are some goals that you can strive to achieve:²

- Know accounting and its relevance in business.
- Make your course interesting by using a variety of instructional strategies.
- Be fair in what you assign and how you grade.

² Adapted from Judson Newcombe, ed., *Speech Communication Teacher*, Vol. 1, No. 1 (Fall 1986): 3. Used by permission of the National Communication Association.

- Be friendly and interested in your students; respect them.
- Make learning attractive.
- Maintain control of your class.
- Organize your presentations and assignments well.
- Display a controlled sense of humor.
- Share personal experiences associated with accounting, business operations, or the development of communication or life skills.

TOWARDS THE PATHWAYS VISION MODEL OF INTRODUCTORY ACCOUNTING

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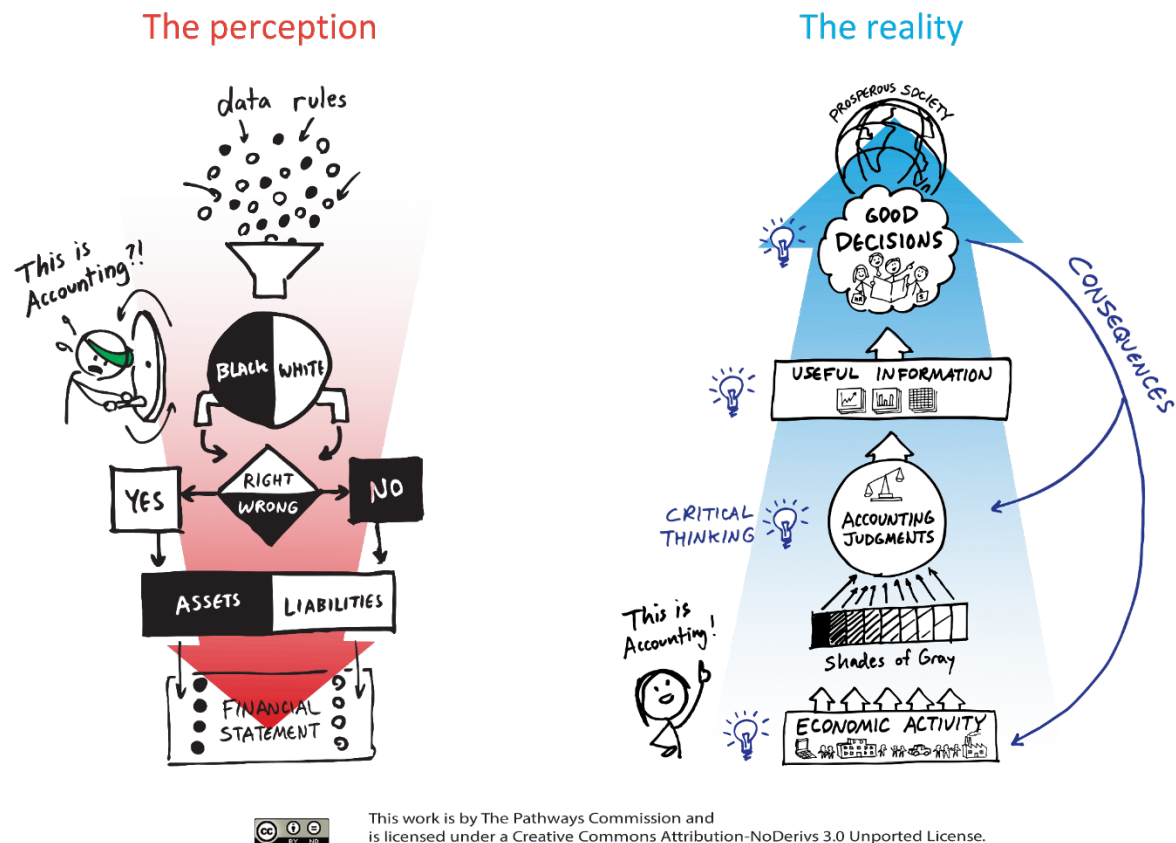
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TOWARDS THE PATHWAYS VISION MODEL OF INTRODUCTORY ACCOUNTING

The Pathways Vision Committee was chartered to create a vision to transform the first course in accounting to attract diverse, high-potential students. The American Accounting Association lauded the Vision Model for three overarching features that includes interdependent elements, a simple yet deep visual, and an inclusive approach.

What is Accounting?



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The model is also consistent with a number of emerging trends in accounting education. Among them include recent literature related to the following topics.

- High quality teaching. There has been a shift in education from a teaching paradigm to a learning paradigm. High quality teaching is defined in terms of students meeting educational outcomes. High quality teaching requires systematic attention to curriculum and pedagogy and pursuing opportunities for renewal. Instructors need to assess student learning document it, explain problems and improve performance. Professional teaching strategies require planning and involvement to move students from observing and listening to doing and saying.
- Deepen critical thinking skills. Classroom activities are moving towards deep learning beyond memorization. Activities that require students to develop the ability

- to reason critically and exercise professional judgment by decision making processes that require addressing complex ambiguous practice situations.
- Competency based education instead of course based education. More colleges and universities are evaluating how to move from a content based to a competency based curriculum. Much of the focus has been related to learning outcomes based on what students can do in lieu of what students should know.

A Midwestern University attempted to apply the ideas of the Pathways Vision Model to the introductory accounting class in an online environment during the summer 2014 semester. Based on student feedback some adjustments for the fall 2014 semester and additional adjustments in spring 2015 course were made. The paper describes the approach used to make an online introductory class consistent with the Vision Model.

The majority of students enrolled in the program are working adults with an average age of 32. In addition, the University enrollment contains over 30% students of color making it one of the most diverse schools in the United States. In addition, most students had completed coursework at other schools

Theoretical Construct

In an online environment the teacher becomes a facilitator, guide and coach in the teaching/learning process (Fajardo, 2015). This paradigm shift reflects the type of communication and the technology used in the process. Asynchronous (not in real time) dialogue was used in the class because it extended reflection time, allowing learners the opportunity to compose thoughtful, probing contributions. In addition virtual discussions provide little place for disengaged participants to hide or to fake involvement. In addition, online professional dialogue uses sophisticated telecommunications and technologies from learning management systems and publisher.

The pedagogical foundation of guided inquiry was used in the class. The National Science Foundation considers guided inquiry pedagogy front and center of effective teaching. Renowned experts in business training like Peter Senge use guided inquiry as a conceptual and pedagogical tool. Guided inquiry supports dialogue that allows learners to construct their own knowledge. (Collison, et al 2000)

The “Guide on the Side” proposed by Collinson (2000) was the prevalent teaching approach. The approach fosters a culture where participants take charge of their own learning as learners react to content, share challenges, teach each other and learn by putting into words (discussion postings) their own understanding and clarifications of assumption. Along the way the Guide on the Side serves to focus and deepen the dialogue without getting in the way of participants’ development of their own expertise.

Online Development Model

The organizing framework that served as a checklist for curriculum design was the Quality Matters design standards for online and blended courses. The framework is organized around the following standards

1. The overall design of the course is made clear to the learner at the beginning of the course.
2. Learning objectives describe what learners will be able to do upon completion of the course.
3. Assessments are integral to the learning process and are designed to evaluate learner progress in achieving the learning objectives.
4. Instructional materials enable learners to achieve stated learning objectives.
5. Course activities facilitate and support learner interaction and engagement
6. Course technologies support learners' achievement of course objectives.
7. The course facilitates learner access to institutional support
8. The course design reflects a commitment to accessibility and usability for all learners.

Classroom Assessment

Class assessments were influenced by training received at the University of Indianapolis. Marsha Huber presented Designing Classroom Assessment Techniques training. The training cited a Google study of 60 accounting syllabi from various courses (principles, tax, intermediate, costs, systems and auditing) that confirmed most assessments were focused on testing and homework. The overwhelming emphasis was on testing comprising 75-85% of the course grade, some online classes were 100% dependent on tests (Huber, 2009).

As a result of the work by Huber (2009), the syllabi in the introductory accounting class was revised to incorporate different methods of assessment. One goal of the course was to move towards written assignments to improve critical thinking skills. An emphasis on real life examples and having students reflect on their learning was incorporated into the class. In addition direct assessment of student learning through the use of a pre and post-test design was the primary approach used for assessing learning, and replaced the emphasis on indirect measures of student learning like student evaluations that describe how students feel about their learning.

The syllabi identified the following points students could earn from assessment activities.

| | Points | % | |
|---------------------------------|---------------|----------|-------|
| Preparation | | | |
| Practice final | 25 | 3.8% | |
| Adaptive learning practice | 50 | 7.7% | |
| Total preparation | 75 | | 11.5% |
| Testing and Homework | | | |
| Weekly Homework | 200 | 31% | |
| Comprehensive final examination | 150 | 23% | |
| Total testing and homework | 350 | | 54% |
| Writing assignments | | | |

| | | | |
|----------------------------------|-----|-------|-------|
| Online discussions | 50 | 7.7% | |
| Homework Helper reflection paper | 50 | 7.7% | |
| Case studies | 50 | 7.7% | |
| Annual Reporting Project | 75 | 11.5% | |
| Total writing assignments | 225 | | 34.5% |
| Total | 650 | | 100% |

Learning Activities

Students were awarded participation points for completing a 50 question multiple choice exam during the first week in class. The practice final questions were randomly assigned from the textbook test bank. The exam parameters directed the learning management system (D2L) to select either 3 or 4 questions per chapter from a test bank of 140 questions per chapter to make it a randomized exam. The likelihood that any two students received the same exam during the practice final was remote. This pretest provided a reliable and valid method to measure student performance at the beginning of class. The practice final provided a method to assess learning directly when student performance was compared to the final. .

An additional benefit of the practice exam was students who scored well were encouraged to take a waiver exam and test out of the class. Since many transfer students were required to repeat introductory accounting due to transfer equivalency issues, the pretest helped to confirm the competencies of students. Another significant benefit was the use of a practice final to take the pressure off of a high stakes comprehensive final exam. The practice final appeared to reduce the anxiety associated with the final because the practice final provided the size and scope of questions asked on the final exam. Finally, the practice final reduced any potential technical difficulties associated with taking the exam online.

The pretest and final exam were used to assess the learning objective of measuring whether students demonstrated a mastery of the subject matter. The average score of students completing the pretest was 22 and 20 out of 50 questions respectively. The average score of students completing the final exam was 34 and 36 which demonstrated a learning improvement of 60 and 56% respectively.

The class relied on the adaptive learning resources of the textbook. Adaptive learning is the next generation of textbook support reflecting the increased emphasis placed on curriculum design. At this stage of development, most accounting texts have defined learning objectives and the ability for instructors to filter content by learning objectives. The pace of the class included one chapter per week. The textbook functionality allowed the instructor to select a practice deck of questions based on learning objectives for the chapter to introduce students to the material and allow them to practice. Adaptive learning requires students to identify their confidence in their answers before submitting to reinforce the learning objectives. The adaptive learning practice set of questions was scheduled for students to complete in 20 minutes although it was recognized most students may take three times the amount of time. The best students spent less time preparing while other students required more time to develop their skills. Students were

encouraged not to spend more than 1 hour per week on practice activities. By the end of the week, students were required to prepare answers to weekly homework assignments in the publisher's learning management system.

Between the adaptive learning at the beginning of the week and the homework assignments at the end of the week, students were required to post a response to the question of the week during the 13 weeks of instructions. The questions were mostly open ended and emphasized a grey matter such as, "Do you think Property Plant and Equipment should be valued at Fair Market Value?" The purpose of this type of question was to encourage students to develop their critical thinking skills by taking a position and recognizing that there was more than one reasonable alternative. Over the course of the semester over 600 discussion postings were generated from a class of 24 students. The grading rubric used for discussion postings is listed in the Appendix.

By the end of the week, after discussions and guided problem solving examples were available, students were required to complete homework assignments related to the topic.

Students could earn 5 points at the beginning of the week working on adaptive learning activities that prepared students to learn the material. Students could earn 20 points a week for the homework assignment required to be completed at the end of the week. The point differential was based on beginning of the week work required individual practice without the benefit of support and instruction from the class and the instructor. Students were able to drop the three lowest scores from each activity.

In addition to the required weekly adaptive learning and homework exercises, each student was required once during the semester to serve as the homework helper. The homework helper's role was to complete the homework assignment three days before the due date and post a reflection on completing the homework. The goal of homework helper was to help learners reflect on their learning by writing their experience in three steps.

1. What? Report the facts and events of an experience, objectively.
2. So What? Analyze the experience.
3. Now What? Consider the future impact of the experience on you

Approximately half the class reviewed the homework helper postings each week.

The final assessment tool used in the course was the Annual Reporting Project. Most introductory textbooks include a set of financial statements in the Appendix and the textbook often refers to the statements in explaining key concepts. The financial statements of a publicly traded were presented in the textbook appendix. However the most current financial statements of publicly traded company were not presented in the textbook. As a result the assignment required students to complete the following steps.

1. Access the most current 10k of the company from Edgar and enter the financial statement information into an excel template (created by the instructor) with the prior

- year financial statement information. There were four tabs in the Excel Spreadsheet with Balance Sheet, Income Statement, Statement of Cash Flows and a Ratio Tab.
2. Research the company including reading the Management Discussion and Analysis section of the 10k to identify risks to the Company.
 3. Chart the stock price of the Company.
 4. Prepare vertical and horizontal analysis of the financial statements.
 5. Calculate ratios and identify the ratios as stronger/weaker than the industry.
 6. Identify a written summary outlining if students would recommend the investment to a family member.

Grading rubrics were developed for classroom discussions, the case studies, and the annual report projects.

The major change implemented in the spring 2015 section of the class was to include an accounting cycle problem. In the past, textbook supplements were offered in the next financial accounting course to build accounting cycle skills. However, in the recent addition of the introductory text, a complete accounting cycle exercise was built into the homework management system of the textbook allowing the exercise to be easily assigned.

Much has been made of the differences associated with a user and preparer approach to introductory accounting. The course as currently designed requires students to learn both approaches to learning accounting. The accounting cycle is required to be completed between week 3-6 after reviewing the accounting cycle, while the annual report project starts in week 7 after discussion of financial statement analysis.

Based on the curriculum design of the class, there was a number of features that moved the class in the direction of the Vision Model including:

- Students were required to understand and apply accounting rules and principles. The homework and textbook assignments involved students learning fundamental concepts and applying them to solve exercises.
- Students were required to learn and apply financial statement analysis tools. The annual report project required students to calculate ratios, and vertical and horizontal analysis in Excel and use the information to form a judgment in determining whether the company was a good investment.
- Students were required to explain their understanding of accounting by answering questions about grey areas. Questions of the week and small cases studies focused on ethics and other topics were designed for students to explain their understanding and consider consequences.
- The requirement for students to form judgments about accounting practices by making convincing arguments on topics and using persuasive reasons to support their position. Discussions about Core Earnings and Earnings Management helped students to understand there is more than one method to prepare financial statements and the recognition that financial statements include a significant amount of estimates. In addition, the financial statement analysis project required students to evaluate a publicly traded company.

Future direction for the class will include course design efforts to improve real-time and real-place educational sessions. Asynchronous communication may have limitations such as the lack of body language from which the instructor can gauge the interest of participants and consequently adjust the tone or pace of the presentation. Future direction of the class will likely add a third dimension in the form of synchronous (live) class sessions that make use of voice-over-the-internet (VOIP) technology to provide a voice/visual environment.

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APPENDIX 1

| Discussion Participation Grading Rubric | | | | |
|--|--|--|---|--|
| Criteria | Non-performance | Basic | Proficient | Distinguished |
| Applies relevant course concepts, theories, or materials correctly. | Does not explain relevant course concepts, theories, or materials. | Explains relevant course concepts, theories, or materials. | Applies relevant course concepts, theories, or materials correctly. | Analyzes course concepts, theories, or materials correctly, using examples or supporting evidence. |
| Collaborates with fellow learners, relating the discussion to relevant course concepts. | Does not collaborate with fellow learners. | Collaborates with fellow learners without relating discussion to the relevant course concepts. | Collaborates with fellow learners, relating the discussion to relevant course concepts. | Collaborates with fellow learners, relating the discussion to relevant course concepts and extending the dialogue. |
| Applies relevant professional, personal, or other real-world experiences. | Does not contribute professional, personal, or other real-world experiences. | Contributes professional, personal, or other real-world experiences, but lacks relevance. | Applies relevant professional, personal, or other real-world experiences. | Applies relevant professional, personal, or other real-world experiences to extend the dialogue. |
| Demonstrates understanding of accounting theory | Does not discuss accounting theory (principles, assumptions, & constraints) | Identifies accounting theory but lacks relevance | Applies relevant accounting theory to the discussion. | Applies relevant accounting theory and extends the discussion. |

APPENDIX 2

Annual Report Project Rubric

| | Distinguished | Proficient | Basic |
|---|---|--|--|
| ARP 1 Financial Statements 9 points | Retrieves current year financial statements and updates the excel spreadsheet with correct line items itemized and correctly uses formulas to summarize subtotals and totals | Retrieves current year financial statements and updates the excel spreadsheet with correct line items itemized. | Retrieves current year financial statements and updates the excel spreadsheet |
| ARP 2 Company Analysis 12 points | Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly. | Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning. | Information is taken from source(s) without any interpretation/evaluation. Viewpoints of experts are taken as fact, without question. |
| ARP 3 Stock Market Activity 6 points | Summarizes current stock market quote and history in a format that facilitates a market performance analysis. | | Summarizes current stock market quote and history |
| ARP 4 Industry Comparisons 15 points | Properly retrieves and places industry averages in the excel spreadsheet and correctly identifies most ratios of the Company as being stronger or weaker than the industry. Describes the meaning of the ratio. | Properly retrieves and places industry averages in the excel spreadsheet and correctly identifies most ratios of the Company as being stronger or weaker than the industry. | Properly retrieves and places industry averages in the excel spreadsheet. |
| ARP 5 Ratio Analysis 18 points | Specific position takes into account the complexities of an issue. Others' points of view are acknowledged within position. | Specific position (perspective, thesis / hypothesis) acknowledges different sides of an issue. | Specific position (perspective, thesis / hypothesis) is stated, but is simplistic and obvious. |
| ARP 6 Conclusion 15 points | Conclusions and related outcomes are logical and reflect student's informed evaluation and ability to place evidence and perspectives discussed in priority order. | Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly. | Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified. |

IMPROVING STUDENTS' BUSINESS WRITING: A QUICK AND EASY METHOD

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IMPROVING STUDENTS' BUSINESS WRITING: A QUICK AND EASY METHOD

ABSTRACT

This paper provides a proven method for improving the quality of students' business writing with limited effort by the instructor and minimal use of classroom time. The paper includes two handouts developed over several years by the author which highlight common errors students make in their business writing. Students receive the handouts with every writing assignment and the instructor explains how to use the handouts. The paper also provides a checklist which students complete and submit to the instructor with their writing assignments. The checklist requires students to verify whether they reviewed and corrected their writing for the business writing structure and common errors described in the handouts.

INTRODUCTION

Students typically enter college with little to no prior instruction as to what constitutes effective business writing. At the beginning of any business-related class, some students are further ahead than others with their knowledge and practice of implementing basic grammatical rules. The writing assignments turned in by these students initially receive higher grades than other students unless classroom time is spent before the first writing assignment to instruct on basic grammatical rules. Very few beginning students, however, have prior experience writing a business memorandum, letter, or email discussing financial matters which effectively utilize headers, bullet points, and brevity. Therefore, in most initial business writing assignments, the vast majority of students receive lower grades on their use of effective business writing structure unless the instructor spends classroom time before the first writing assignment to instruct on it.

When choosing not to dedicate any classroom time discussing writing expectations before the first writing assignment, the instructor ends up spending countless hours correcting common grammatical and structural business writing errors when grading the initial writing assignment. After that, in the absolute best case scenario, students understand the errors they committed and where they failed to utilize proper business writing structure. These students then retain this knowledge and implement it into subsequent writing assignments.

Of course this scenario rarely occurs. Instead, students either do not sufficiently understand the comments made on their assignment, or they do not remember it when they write their next writing assignment. The instructor then ends up writing the same comments over and over again, often to the same students.

RESEARCH QUESTION

Is it possible to improve the quality of students' business writing with limited effort by the instructor and minimal use of classroom time?

FINDINGS AND DISCUSSION

Yes, is it possible to improve the quality of students' business writing with limited effort by the instructor and minimal use of classroom time? The following is one proven way to do just that:

- Provide students with the two pages of “Writing Advice” attached to this paper with every writing assignment. (See Appendices A and B.)
- Explain the differences between guidelines and rules in writing, and make clear that failure to follow the Writing Advice will harm their grade.
- Require them to complete the attached checklist as part of their assignment. (See Appendix C.)

It makes no difference if the writing assignment is a research paper, a letter, a memo, an email or whatever. And it can be used in any type of class, with any level of student.

Writing Advice (Appendices A and B)

The advice provided in Appendices A and B is an accumulation of knowledge gained by the author through teaching business-related classes, working in public accounting, and practicing law. The author has taught business writing skills in business-related classes for the past five years. In addition, prior to beginning teaching, the author worked in public accounting for four years—primarily doing research and writing memorandums—and a combined nine years practicing law with the U.S. Securities and Exchange Commission (SEC) in the Division of Corporation Finance and at two law firms in New York, primarily writing and reviewing memorandums and documents filed with the SEC.

Appendix A provides general business writing advice on the structure of business writing, as well as typical grammatical errors committed by students. By explaining to students from the outset the way to structure their writing assignment (e.g., with headers, short sentences and paragraphs), as well as highlighting the typical grammatical errors committed (e.g., periods outside of quotation marks and including “that” when unnecessary), the instructor greatly increases the quality of the business writing received by the student and significantly reduces the time spent correcting typical errors.

Appendix B specifically addresses how to write numbers in business writing. The advice provided in this document includes the types of numbers typically included in writing assignments in accounting and finance classes.

CLASSROOM IMPLEMENTATION — INSTRUCTIONS TO STUDENTS

1. Guidelines Verses Rules

The main explanation needed when handing out the Writing Advice is for students to understand that many of the “rules” in business writing (and in most writing) are simply guidelines. For example, there is no definitive rule for when a sentence or paragraph is too long or too short. But students should understand that a sentence lasting longer than two lines, or a

paragraph reaching half a page, is harder to read and will be viewed by the instructor with increased scrutiny.

Similarly, in business writing there is an increased use of headers, bullet points, and numbering. Knowing how to do this best takes practice. But again, the instructor tells them at the outset of the assignment that any writing turned in without any headers, bullet points, or numbering will be met with a critical eye.

2. Concrete Rules for the Assignment

On the other hand, students should view certain pieces of the Writing Advice as black and white rules—at least for purposes of the writing assignment at hand. For example, a zero should always come before a decimal point if the number is less than one. And students should write the word *negative* in front of negative amounts they discuss rather than simply placing a dash in front of the number. (The instructor should not be left wondering if there is an ink spot from the printer on the paper.)

It is important for the instructor to emphasize that the Writing Advice is simply the criteria which will be used to grade this particular assignment. When they graduate college and enter the work world, they need to consider their current audience, as well as ask their employer which methodology to follow. For example, the Writing Advice requires students to spell out numbers zero through ten (save for a few exceptions), which is consistent with the *Gregg Reference Manual*. On the other hand, if the writing assignment were to meet the requirements of the *Associated Press Stylebook* (AP), students would spell out numbers zero through nine and begin with numerals at ten. Or if writing to meet the requirements of the *Chicago Manual of Style*, students would spelling out whole numbers one to ninety-nine.

By utilizing the Writing Advice, students learn to be attentive to the rules and structure of business writing. They also begin to develop an appreciation for the differences between guidelines and rules generally.

3. Checklist

Appendix C provides a checklist which requires students to verify whether they reviewed and corrected their writing for the common errors and business writing structure described in the Writing Advice. The checklist forces students to at least attempt to implement the Writing Advice into each writing assignment, as well as aids students in their retention of the Writing Advice. The checklist also helps the instructor to avoid writing the same comments over and over again, often to the same students.

Grading

The instructor may choose to include some of the Writing Advice into their grading rubric. Doing so is a helpful way of awarding points to students who are diligent in following the Writing Advice. In addition, certain concrete rules—such as zeros before decimals and punctuation when using quotation marks—also provides objective ways to grade a papers.

It is not necessary, however, for the instructor to include the Writing Advice into their grading regime to achieve results. Simply providing students with the Writing Advice, putting them on notice of what is expected for a writing assignment, and requiring them to return the completed checklist is enough to improve their writing. It is a quick and easy way to make students better business writers.

Electronic copies of the attachments (in MS Word) are available by clicking [insert website information here if applicable?].

Additional Advice

The following is additional writing advice which the author was not able to include in General Business Writing Advice (Appendix A) due to the desire to keep the advice to one double-sided piece of paper. Instructors may wish to include this advice in other ways.

- **Continual, continuous.** *Continual* means frequently repeated. *Continuous* means without interruption.
- **Practical, practicable.** *Practical* means useful, not theoretical. *Practicable* means capable of being put into practice.
- **Manuel, manual.** One is the name of a Latin guy; the other is a book or something done with physical force.
- **Defined terms.** Capitalize the first letter of defined terms. Avoid defined terms when possible.
- **Ratio names.** Ratio names do not need to be capitalized. Only capitalize ratio names (if you choose) when you are showing manual calculations, never within the body of a paragraph.
- **Corporation.** This is a singular entity, not plural—the same as a person. Refer to a corporation or company as *it* or *its*, rather than as *they* or *their*.

CONCLUSIONS

It is possible to improve the quality of students' business writing with limited effort by the instructor and minimal use of classroom time. The instructor need only provide students with the two Writing Advice handouts which highlight common errors students make in their business writing. Students receive the handouts with every writing assignment and the instructor explains how to use the handouts. The instructor also provides students with a checklist which they complete and submit to the instructor with their writing assignments. The checklist requires students to verify that they reviewed and corrected their writing for the common errors described in the handouts.

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APPENDIX A

GENERAL BUSINESS WRITING ADVICE

- **Start with your request or recommendation.** The purpose for your writing should abundantly clear from the start.
- **Use short sentences.** Of course if every sentence is too short then your writing will appear choppy. So use discretion. Rarely should a sentence exceed two or three lines.
- **Use short paragraphs.** How short? Sometimes one or two sentences is enough. Rarely should a paragraph exceed five to six sentences.
- **Use headers.** Guide the reader and break-up your writing by using headers. Headers are single words or short phrases that cover the material underneath it.
- **Use bullet points and numbers.** Use these to highlight critical information, steps, and lists.
- **Use ACTIVE VOICE!** Review each sentence and ask yourself whether it can be rephrased in the active voice. Avoid past tense and future tense when possible. Use “is” rather than “was.” Watch for words ending in “ed” and any form of “to be.”
- **Consider deleting “that.”** The word “that” can often be deleted without any loss in meaning and can make the sentence easier to read. That said, sometimes it is needed.
- **Use one space between sentences, not two.**
- **Use commas.** Write how you speak: if you pause when reading part of a sentence, it’s likely a comma goes there. Commas also help to break up longer sentences, which allows sentences to flow better, and allows you to look cool.
- **Don’t use contractions.** Contractions are not appropriate in formal business writing.
- **Get. Gotten. Got.** These words lack professionalism: avoid using them if possible.
- **Avoid colloquialisms.** Write professionally, without common slang or figures of speech.
- **Do not editorialize.** Do not write about what you are doing—just do it. For example, do not write, “Next I turned to calculated revenue.” Instead say, “Revenues are”

- **“Punctuation within quotes.”** Small punctuation (such as periods, commas and semicolons) go within the quotation marks. Large punctuation (such as question marks and exclamation points) go outside the quotation marks—unless they are part of the original quote, then they go within the quotation marks.
- **Semicolons.** Some business writers say semicolons are for novels; business writing is different. Use semicolons to the extent helpful to emphasize a point. But it is likely better to write two short sentences in business writing.
- **E.g. and i.e.** E.g. is Latin for “for example.” I.e. is Latin for “that is.” Always include a comma after these abbreviations—i.e., the same as you would if you were writing out the actual words.
- **However.** Some business writers say you should never begin a sentence with *however*. This, however, is not true. But you will notice that too many sentences begin with *however*, and that a sentence often flows better (and emphasizes your point better) when *however* is included within the sentence. Alternatives to *however* include: On the other hand; That being said; Conversely; Alternatively; To the contrary.
- **Therefore.** Similar to the advice above for *however*, too many sentences begin with *therefore*. Try to either include it within the sentence or exclude it.
- **Than, then.** *Than* is used when making a comparison. *Then* is used in a description of time.
- **Alot.** Not a word. People make this mistake a lot.
- **Irregardless.** Also not a word, irregardless of what you think. Use regardless or irrespective.
- **Between, among.** *Between* implies two persons or things. *Among* implies three or more.
- **Farther, further.** *Farther* refers to distance. *Further* means to a greater extent or degree.
- **Effect/Affect.** Scrutinize closely whether you are using these words correctly. Affect (a verb) means to influence. The War affected us. Effect (a verb) means to bring about. Policy effected change. Effect (a noun) means result. Talking had no effect on him.
- **Its, It’s, There, Their, They’re, Your, You’re.** Know the difference and always use these correctly!
- **To, too, two.** Always use these words correctly, too!

- **Which.** A comma is often required before the use of the word *which*. Use a comma before *which* when it is used to refer to a prior clause—e.g., She is a good writer, which I hope all my students become. Do not use a comma when *which* is defining something—e.g., The red tie which is on the bed. But ask yourself if it is more accurate to use *that* instead of *which*. See below.
- **That, which.** *That* is used more often than *which*. Use *that* with restrictive clauses. A restrictive clause is one that limits or restricts the subject in some way—e.g., The painting that was hanging in the foyer was stolen. Use *which* with nonrestrictive clauses. A nonrestrictive clause may tell us something interesting or incidental about a subject, but it does not define that subject—e.g., The painting, which was hanging in the foyer, was stolen.
- **Remove widows and orphans.** This is writers’ lingo for saying print out your paper and make sure you do not have a header or one line of a sentence at the top or bottom of the page by itself.
- **Principal, principle.** *Principal* means a sum of money, or chief, main, premier, leading. *Principle* means a rule or fundamental truth.
- **Choose, chose.** You choose something in the present or future. You chose something in the past. Think of the two *O*’s of choose as eyeglasses—helping you to see forward.
- **Awhile, a while.** Use *awhile* when meaning “for a time.” A trick is to replace the word *awhile* with “for a while” and see if it makes sense. For example, “I’ll be in class for a while” is incorrect because you wouldn’t say “for” twice. The phrase *a while* is more often correct.

APPENDIX B

WRITING NUMBERS ADVICE

Do not put two numbers next to each other. Spell out the number that has the fewest letters.

Incorrect: The investor purchased 5 20-year bonds.

Correct: The investor purchased five 20-year bonds.

Always put zeros in front of decimal places.

Incorrect: Wilson Corp. had a debt-to-equity ratio of .75 for the current year.

Correct: Wilson Corp. had a debt-to-equity ratio of 0.75 for the current year.

Always write the word *negative* in front of negative numbers. Do not put a dash in front of negative numbers.

Incorrect: Last year, the company's cash flows from operations were -4.5 million.

Correct: Last year, the company's cash flows from operations were negative 4.5 million.

Never start a sentence with a number. Spell out the number or revise the sentence.

Incorrect: 18% of revenues were from international sales.

Correct: Eighteen percent of revenues were from international sales.

Spell out numbers zero through ten (but see exceptions below). Numbers 11 and up should be written as numbers.

Incorrect: The audit committee consisted of 2 members deemed to be financial experts.

Correct: The audit committee consisted of two members deemed to be financial experts.

Exception #1. Use numbers when modifying time, unit of measure, or proportion.

Incorrect: In the last five years, the IRS Code and Regulations have increased three inches.

Correct: In the last 5 years, the IRS Code and Regulations have increased 3 inches

Exception #2. Be consistent in the same sentence.

Incorrect: Of the 15 senior officers, only three officers have a degree in accounting or finance.

Correct: Of the 15 senior officers, only 3 officers have a degree in accounting or finance.

Spell out numbers that are rounded or estimated.

Incorrect: Total current liabilities for 2012 were approximately \$200,000,000.

Correct: Total current liabilities for 2012 were approximately \$200 million.

Be consistent with the number of decimal places you use.

Incorrect: Delta's current ratio was 1.2 and 1.35 for quarters ended June 30, 2001 and 2002, respectively.

Correct: Delta's current ratio was 1.20 and 1.35 for quarters ended June 30, 2001 and 2002, respectively.

Use the number and percentage symbol when writing percentages.

Incorrect: The current year provision for income taxes is twenty percent of sales.

Correct: The current year provision for income taxes is 20% of sales.

Use a hyphen between a number and the word *year* when it modifies a noun.

Incorrect: The Treasury Department issued \$100 million in 20 year bonds.

Correct: The Treasury Department issued \$100 million in 20-year bonds.

Use numbers for decimals and fractions (see exception below).

Incorrect: EBITDA increased by only three hundredths of a percent this year and one-twelfth last year.

Correct: EBITDA increased by only 0.03% this year and 1/12 last year.

***Exception:* Spell out simple fractions and use hyphens between them.**

Incorrect: Gross margin for the current year is expected to be 2/3 lower than last year.

Correct: Gross margin for the current year is expected to be two-thirds lower than last year.

Hyphenate all compound numbers from twenty-one through ninety-nine.

Incorrect: Forty six employees were awarded bonuses for the current year.

Correct: Forty-six employees were awarded bonuses for the current year.

Ranges using percentages should use two (not one) percentage symbols following each figure.

Incorrect: The company's PP&E ranges from 15-18% of sales.

Correct: The company's PP&E ranges from 15%-18% of sales.

Ranges using dollars should use two (not one) dollar symbol following each figure.

Incorrect: The company's PP&E ranges from \$350-425 million each year.

Correct: The company's PP&E ranges from \$350-\$425 million each year.

Use the dollar symbol rather than write the word *dollars*.

Incorrect: XYZ Company's net income for the year ended was 4 million dollars.

Correct: XYZ Company's net income for the year ended was \$4 million.

Place the currency symbol in front of the value.

Incorrect: The equipment costs either 8\$ million, 6.6€ million, or 6.4£ million.

Correct: The equipment costs either \$8 million, €6.6 million, or £6.4 million.

Write out the country name and currency name for lesser known currencies.

Incorrect: The seller in Marrakech is asking 1.7 million dirhams.

Correct: The seller in Marrakech is asking 1.7 million Moroccan dirhams.

Write the country abbreviation in front the dollar symbol if using several dollar-based countries.

Incorrect: Local sales in Canada were \$12.7 million, whereas they were \$14.2 million in Singapore.

Correct: Local sales in Canada were CAD \$12.7 million, whereas they were SGD \$14.2 million in Singapore.

Use ordinal numbers (e.g., 1st, 2nd, 3rd, etc.) in dates correctly.

Incorrect: The company is planning to buy the building on September 30th, 2015.

Correct: The company is planning to buy the building on September 30, 2015.

Incorrect: The company is planning to buy the building on September 30th.

Correct: The company is planning to buy the building on September 30.

Correct: The company is planning to buy the building on the 30th of September.

There are three basic ways to write time correctly.

Incorrect: 8:00AM, or 8:00am, or eight in the am.

Correct: 8:00 A.M., or 8:00 a.m., or eight o'clock in the morning.

Use *noon* and *midnight* rather than 12:00 P.M. and 12:00 A.M.

Incorrect: The funds from the common stock sale are set to transfer at 12:00 P.M.

Correct: The funds from the common stock sale are set to transfer at 12:00 noon.

APPENDIX C

WRITING CHECKLIST

[CLASS NAME]

[SEMESTER/TIME]

Your name

Name of writing assignment

Before handing in your assignment, please indicate whether you reviewed and revised your work to address the Writing Advice you were provided, including the following:

| | | | |
|------------------------------------|---------------------------------|--------------------------------|---------------------------------|
| Start with the recommendation? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Use active voice? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Remove unnecessary uses of “that”? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Use short paragraphs? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Use short sentences? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Include headers? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Include bullets and/or numbers? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Remove widows and orphans? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Use one space between sentences? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Use commas? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Remove contractions? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |

| | | | |
|---|---------------------------------|--------------------------------|---------------------------------|
| Remove get, gotten, and got? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Remove colloquialisms? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Remove editorializing? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Use correct punctuation for all quotes? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Use <i>however</i> and <i>therefore</i> correctly? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Remove two numbers next to each other? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Use a zero in front of decimal points? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Use the word <i>negative</i> in front of negative numbers when discussing them? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Remove sentences that start with a number? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Spell out numbers zero through nine, unless an exception applies? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Spell out numbers that are rounded or estimated? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Use consistent decimal places? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Use the number and percentage symbol when writing percentages? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Use a hyphen between a number and the word year when it modifies a noun? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Use numbers for decimals and fractions, unless exception applies? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Correctly use dollar symbol and percentages with ranges? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Use the dollar symbol rather than write the word <i>dollars</i> ? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Place the currency symbol in front of the value? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |

| | | | |
|--|---------------------------------|--------------------------------|---------------------------------|
| Use country name and currency name for lesser known currencies? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Write the country abbreviation in front the dollar symbol if using several dollar-based countries? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Use ordinal numbers (e.g., 1 st , 2 nd , 3 rd , etc.) in dates correctly? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Correctly write time in hours and minutes? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |

**USING BLOOM'S TAXONOMY TO PROMOTE HIGHER LEVEL THINKING AND
LEARNING IN INTRODUCTORY ACCOUNTING COURSES**

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USING BLOOM'S TAXONOMY TO PROMOTE HIGHER LEVEL THINKING AND LEARNING IN INTRODUCTORY ACCOUNTING COURSES

Abstract

Bloom's taxonomy has been used for years to promote higher level learning in the academic learning environment. This paper focuses on the application of Bloom's Taxonomy in an Introductory Accounting Course in the online learning environment. Learning levels will be applied to the introductory concepts of creating financial statements. The paper will present a practical application of Bloom's Taxonomy, using specific examples of a company's annual report. The application will allow students to move from basic memorization of introductory accounting concepts to using their critical thinking skills to evaluate and synthesize accounting concepts. Students will realize the learning objectives of the course as they progress through the levels of learning. Assignment examples will be given and explained in the paper.

INTRODUCTION

In Introductory Accounting courses, students are introduced to the basic accounting principles and concepts that lay the foundation to the accounting discipline. Even in the introductory principles courses, the learning curriculum points to teaching students to use their critical thinking skills to solve business problems. Further, the AACSB requires that business programs educate their students to have the ability to use their critical thinking and analytical skills to study the business process. One of the goals of both an undergraduate and a graduate business education is to train students to solve business problems. As a result, faculty must teach their students to progress through learning levels in order to function at the higher levels of critical thinking.

Students who take principles of accounting courses are not necessarily accounting majors. The majority of institutions who employ some type of undergraduate business degree require that the student take two accounting courses. The consequence of this mixture of students is that there will be a wide variety of student learning goals for the course. Some students are beginning to learn accounting to lay the foundation to their majors, while other students are just trying to pass the course and move on to their major courses. Faculty must be cognizant of the makeup of the students in their course. This will allow the professor to incorporate the diverse student population into the learning strategies designed to move the students to higher level thinking. Regardless of major, the importance of accounting information cannot be discounted. Students need to be taught to apply the information they obtain in the principles of accounting courses to business situations in the world around them.

Application of this technique is used in the basic accounting courses offered at the author's institution, although the technique can be modified for implementation in various accounting topics on varying course levels, with varying modes of deliveries.

This paper first discusses Bloom's Taxonomy and the six different levels of learning that Bloom discussed in his model. Each level of Bloom's taxonomy will be paired with assignment examples that promote the students' learning ability at the specified level, as well as to help the

student progress through the levels. Some assignments will then be presented in detail with specific examples that point to the ability of the assignment to promote a certain level of thinking. After discussing the assignments and proposed levels of thinking, feedback will be presented. A summary of the process and conclusions and recommendations for future study will be presented.

DISCUSSION OF BLOOM'S TAXONOMY

Educators strive to help students develop critical thinking skills related to their studies. The publication of Taxonomy of Educational Objectives paired with conferences conducted shortly thereafter proposed a taxonomy that classified learning objectives into domains. (Bloom, 1956) Benjamin Bloom chaired the committee that developed the taxonomy.

The taxonomy proposes three domains of educational objectives: cognitive, affective, and psychomotor. Bloom's taxonomy proposes that there are six levels of thinking. The cognitive domain focuses on a student's understanding of the subject matter. The student can relate to learning within six different levels (Krathwohl & Bloom, 1989). The affective domain focuses on emotion, attitude, and feeling. The affective domain contains five levels: receiving, responding, valuing, organizing, and characterizing (Krathwohl, Bloom, & Masia, 1999). Students start at the lower level of receiving and progress to higher level thinking skills such as allowing a particular values to influence behavior. The third domain is Psychomotor. The psychomotor domain discusses physical ability, specifically, skills related to how one reacts physically to different situations (Harrow, 1972).

The cognitive domain is the most heavily applied within the field of education. Students must progress through each level, starting from the lowest order processes and ultimately reaching the highest level. The levels, from lowest order processes to highest are knowledge, comprehension, application, analysis, evaluation, and synthesis (Krathwohl & Bloom, 1989). In 2000, the cognitive domain of Bloom's taxonomy was revised. The revision was fundamentally the same, but some of the levels were changed in name; remember, understand, apply, analyze, evaluate, and create (Anderson et. al., 2001).

The six levels of Bloom's taxonomy lend themselves to subject matter that becomes progressively more difficult (Needles, 2014). By aiding in a student's progression from lower level thinking skills to higher level skills, the objectives and learning outcomes in an accounting course can be reached in a way that will enrich students' learning and provide them with a critical thinking toolbox that they can use throughout their business studies. Bloom's taxonomy has been shown to be effective in producing learning objectives in accounting courses within the shell of a total learning environment (Needles, 2014). Needles and Anderson (1994) included Bloom's taxonomy in their comprehensive model for accounting education. By using this taxonomy, students will have a better understanding of the accounting process that stretches beyond merely memorizing terms and regurgitating them.

The courses in this study were principles in accounting courses being taught through the online course delivery method. Discussion Boards are required assignments for both Principles of Accounting One and Two. Bloom's Taxonomy is applied to discussion board assignments that

are assigned every week throughout the term. As the term continues, new discussion board topics naturally progress through the six levels of the taxonomy. The levels complement the accounting cycle introduced and discussed in the text. The Levels of Bloom's Taxonomy can be briefly described as follows:

Knowledge

Knowledge is the lowest level of thinking. Students are required to remember basic concepts and answers. In accounting, examples of knowledge would include remembering the accounting equation, defining assets, liabilities, and capital accounts, naming the four financial statements. This basic knowledge is important in forming a foundation in accounting theory. However, if students remained at this level, they could produce basic information by repeating information straight from the textbook.

Example of the Knowledge Level: Basic Concepts

Students begin the course with little to no experience in accounting. Through student written introductions in the discussion board, it can be concluded that the majority of the students are in the principles courses of accounting because the courses are required for their degree programs. In the first weeks of the course, the students are introduced to accounting, including the accounting equation, generally accepted accounting principles, accounting concepts, recording transactions in the general journal, and posting information to the general ledger. To access level of knowledge, students are then required to complete a discussion board. The discussion board requires that students to define the accounting equation in their own words and define examples of assets, liabilities, owner's equity, revenue, and expense accounts. Students have to indicate what accounts would be included on the income statement, statement of owner's equity, or balance sheet. This first discussion board demonstrates that students can produce the information that was learned through the textbook.

Comprehension

Comprehension is the second level of thinking. Once students establish the foundation of knowledge, they can move into the comprehension level. If a student is in this level, they not only remember the concepts, but can also demonstrate that they understand the information (Krathwohl & Bloom, 1989). Students can explain the information in their own words. Students can see the connections between concepts. Students will be able to explain the relationship between the four financial statements.

Example of the Comprehension Level "Pick a Company...Any Company"

Students are assigned a second discussion board assignment when the topics of adjusting entries and closing entries are covered in the course. The discussion board requires that each student research and select a company and submit the annual report of that company. The students are asked to include the reason they selected the company, the company's type of business, and a link to the annual report. Students are also asked to begin looking through their annual report and note the different sections that it contains. Finally, each student is required to

list examples of the five different types of accounts that were covered in the textbook and state which financial statement those accounts would be found.

Application

The third level is application. Once students can comprehend the information, they can apply the concepts to different situations. Students can perform basic financial statement analysis by applying the formulas they learned in the accounting text to a new company, by looking at that company's financial statements and identifying the needed numbers to calculate the ratio. Students can translate, interpret, problem solve, and extrapolate information when functioning at the level of application.

Example Application Assignment: "Cash Crisis"

Students demonstrate the application level through going back into their annual report. Students have been introduced to basic financial analysis at this point in the term. Specifically, students are computing working capital and current ratio. These two equations are applied to demonstrate whether the company that was selected demonstrated liquidity. Students apply this concept to their company by defining the variables needed for the two equations and produce basic numbers. Students present this information on the discussion board and share with the class the interpretation of their findings.

Analysis

Students can then move from application to analysis. Skills in this level include the ability to break down different concepts within the material. Students can compare and contrast the information presented. The outcome of this level is for students to identify and explain concepts (Krathwohl & Bloom, 1989). Students will then gain a deeper understanding of the principles. An example in accounting would be for a student to be able to identify a specific concept related to the course and then identify that same information in a company's notes in the annual report regarding the treatment for the allowance of bad debt. Other examples include identifying long term assets and the treatment of merchandise in the annual report.

Example of Analysis Level: "Just the Facts"

During the week in which the course covers inventory systems, lecture presents the perpetual and periodic inventory systems. Differing methods of accounting for inventory such as the FIFO, LIFO, and average cost systems are discussed. Students are asked to look at their company's annual report and post as to whether the company uses an inventory system. If an inventory system is used, the student must then identify what type of inventory system is being used. At this point in the term, students are also required to identify the notes to the financial statements that relate to the inventory concept. Based on the information that is obtained, the student will then be asked to give a brief synopsis of their company's inventory control system.

Evaluate

Once the analysis level is attained, students can move closer to higher level thinking and move towards the level of evaluation. Evaluation introduces the idea that students can now form their own opinions. Students will also be able to explain their reasoning behind their opinion. Students can clearly articulate and apply concepts from the course. This real world application will deepen the understanding of the concept. Accounting students will be asked to evaluate financial statements and use pertinent information to rate companies. More complex accounting ratios can be applied and discussed. More specifically, students will be able to write a letter to a company's stockholders, discussing various financial ratios and comment on the health of a company.

Example of Evaluate Level: "You are the Stockholder"

Students are now learning about capital accounts at this point in the term. The corresponding chapters address corporations. Specifically, the organization of corporations, stock transactions and dividend transactions. Students learning objectives include understanding the differences between common stock and preferred stock. The discussion board post is an extension of the stock concepts. It is required that the student provide information on their own company's capital accounts. A brief paragraph identifying shareholder information including account balances is required.

Students are given their first writing assignment. This short assignment is posted on the discussion board, as well. The class posting also allows students to read other posts and learn about other companies. Students write a simple memo to a potential stockholder. The required information is meant to explain to the potential stockholder the financial position of the company. The potential stockholder is assumed to have little to no knowledge about the company. Students demonstrate their ability to provide the pertinent information that a stockholder would need to know in order to make an informed decision.

Create

Finally, the last level of Bloom's Taxonomy is the ability to judge, recommend, create, and compare. These skills are acquired while in the create phase. Students can continue to evaluate information, but they can also make judgments and recommend a plan of action. Students will be asked if they would invest in a company. Students will obtain outside information and use the concepts from the book to provide a recommendation with supporting evidence regarding the investment of funds in a company.

Example of Create Level: "Stockholder Information Continued"

The assignment for the evaluation level is extended into the create level assignment. This second half requires the student to evaluate the company's position. The question is posed as to whether the student would invest in their company. If they did choose to invest, the student is required to explain what type of stock would be more attractive. Discussion including references to the financial statements including related ratios is also required.

Although students are asked to glean a simple understanding of the company's capital accounts, this process still requires the students to apply the accounting concepts from the book to a real world situation. Students needed to use their judgment when deciding what they would do with their own money. The personal aspect of the assignment allows the student to become more intimate with the data. This aspect also causes the students to bring in their own preferences when explaining their decision.

Students have the option to choose to invest in a fellow student's selected company if they do not want to invest in their own company. Students begin to compare and contrast varying capital account sections in varying companies' financial statements.

ANALYZING THE SUCCESS OF THE DISCUSSION BOARD ASSIGNMENT SET THROUGH STUDENT FEEDBACK FROM END-OF-COURSE SURVEY

In the most recent term where Bloom's Taxonomy was applied to the discussion board assignments, the following was determined.

Prior to the required class discussion board posts, an estimated 95% of the students enrolled in principles of accounting I and II courses had never seen an annual report, let alone knew how to read the reports and make educated financial decisions. After the class discussion board posts required throughout the term, 100% of the students were exposed to at least one annual report. Students were exposed to financial data interpretation and decision making.

The success of this application is demonstrated through student feedback concerning the annual report discussion board grouping assignments presented in table one.

Table 1.

Sampling of Student Comments:

I was better able to understand why I had to take this course. You really need to know some of this stuff if you are going to work in business

I liked picking my own company. It was easier for me to get motivated when I was looking at something I was interested in.

I picked the company that I have worked for over the past 10 years. I have learned things about my employer that I never knew before.

The course was still hard, but this assignment helped me remember stuff from the book. I didn't have to work so hard to memorize everything

SUMMARY AND CONCLUSION

The ability to use critical thinking skills in the study of business, specifically in accounting, is crucial to a student's success in their education. Teaching these skill in introductory accounting courses can help move students away from the practice of basic rote memorization of concepts. This skill progression is often absent from beginning accounting courses. Students never progress past the level of basic knowledge, which allows for listing and naming accounting information.

This paper presents an approach to help students gain the ability to understand, apply, and evaluate company financial information. Bloom's taxonomy is applied to create a student learning model. The model progresses students through looking at financial accounting concepts with the graduated goals of knowledge, comprehension, application, analysis, synthesis and evaluation. As a result, students will develop critical thinking skills as they progress through the stages of higher level learning. Student discussion board assignments correspond to each level of Bloom's Taxonomy. The assignments gradually build the student's skill set so the end result is a more advanced sophisticated level of accounting analysis which is shown through more detailed discussion board postings that include evaluation of financial data. Examples of these discussion board assignments were provided with specific detail that tied the assignments to particular levels of thinking that encouraged students to expand their understanding and ability.

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**FINANCIAL ACCOUNTING TEACHING TECHNIQUES TO AID STUDENT
UNDERSTANDING OF MERCHANDISE INVENTORY/COST OF GOODS SOLD
EXPENSE CALCULATION AND INVENTORY COSTING METHODS**

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FINANCIAL ACCOUNTING TEACHING TECHNIQUES TO AID STUDENT UNDERSTANDING OF MERCHANDISE INVENTORY/COST OF GOODS SOLD EXPENSE CALCULATION AND INVENTORY COSTING METHODS

To help students understand (rather than memorize), we have used our combined 100+ years of teaching experience to develop some ‘tricks and techniques’ for the Inventory topic in Financial Accounting courses. We have found it effective to initially present material in a ‘simplified manner’, along with some visual props, designed to help students understand the concepts and proceed from that basis to the more difficult material later in the chapter. We start by changing the chapter title to “Inventory AND Cost of Goods Sold Expense”. Our approach is to constantly emphasize the impact of Inventory on Cost of Goods Sold (COGS). Simplistic examples using simple props are initially used for the various inventory costing methods. Our illustrations and visual aids may seem obvious and almost childish to do in a college classroom. However, for many students Financial Accounting is their first business course. Our simple examples have provided a number of those ‘ah ha’ moments.

Cost of Goods Sold

Our starting point is to put the calculation of cost of goods sold expense¹ on the board/screen and refer to it during every class. Note in the calculation below, we add parenthetical comments designed to directly link the contents of the COGS calculation to the financial statements.

| | |
|---|-------------|
| Beginning Inventory (Asset on Beginning Balance Sheet) | XX |
| Plus: Current Period Purchases ² | <u>+ XX</u> |
| Equals: Cost of Goods Available for Sale Subtotal (GAS) | XXXX |
| Less: Ending Inventory (Asset on Ending Balance Sheet) | <u>- XX</u> |
| Equals: “Cost” of Goods Sold Expense (COGS on Income Statement) | XXX |

This initial illustration does not use dollars, but ‘units’. For units, we use golf balls (in an extremely large classroom you could use something bigger than golf balls, e.g., gallon water jugs) for the inventory items. Pick three students from the class and assign them the roles of our company, the vendor (supplier) from whom we purchase our inventory, and our customer who buys the inventory from our firm. Let the class observe the flow of the units (golf balls, gallon water jugs, or whatever you choose) as the three students play their roles of adding units to our inventory when purchased from the supplier and take units out of inventory and place them into COGS when the company sells inventory units to our customer.

Inventory Costing Methods

¹ No discussion of periodic vs. perpetual method is done at this stage in the chapter

² Discussion of ‘net purchases’ is covered later in the chapter

To replace the ‘units’ with dollars, we discuss four inventory costing methods (specific identification, FIFO, LIFO, and weighted-average - starting with very simple illustrations.

Specific Identification

“Happy Harry’s Used Car Lot” has just opened for business in early January. Ask the class what Harry needs and the class (even an 8:00 am class) usually responds with the answer “CARS!”. So tell the class Harry proceeds to buy a 2014 Rolls Royce for \$350,000 and then five days later he purchases a 1974 Volkswagen Beetle for \$6,000. At this point, start filling in the Cost of Goods Sold Expense calculation on the board/screen by replacing the XXXs with dollar amounts:

| | |
|---|----------------|
| Beginning Inventory | \$ -0- |
| Plus Purchases | <u>356,000</u> |
| Equals: Cost of Goods Available for Sale Subtotal (GAS) | \$356,000 |
| Less Ending Inventory | - ??? |
| Equals Cost of Goods Sold Expense (COGS) | \$??? |

Tell the class that a physical count of the ending inventory reveals one car remaining in inventory at the end of the period.³ Now is the opportunity to drive home the impact of inventory valuation on COGS. Without getting into a deep discussion at this point of the FIFO, LIFO, or Weighted-Average Costing Methods, ask the class what COST should be associated with the one car left in inventory on January 31st and what COST should be shown as COGS on the January Income Statement for the one car sold during the period?

Make the following three ‘suggestions’ to the class about how the \$356,000 GAS subtotal could be’ allocated between Ending Inventory and COGS.

- “How about FIFO where the cost of the last car into inventory, the \$6,000 Beetle, is the cost associated with the car in ending inventory and \$350,000 Rolls Royce becomes the COGS?”, OR
- “How about LIFO where the cost of the first car into inventory, the \$350,000 Rolls Royce, is the cost associated with the car in ending inventory and \$6,000 Beetle becomes the COGS?”, OR
- “How about Weighted-Average where you compute a weighted-average cost per car of \$178,000 $[(\$350,000 + \$6,000)/2]$ and use that weighted-average cost per car to determine ending inventory of \$178,000 and also \$178,000 for COGS?”

³ Inventory spoilage and theft is covered in Managerial Accounting

For each of the three suggestions, fill in the dollar amounts to replace the ‘???’ in the above COGS calculation. Students typically see that none of the three inventory methods suggested ‘makes sense’ for Happy Harry’s Used Car business. The class usually can see that the key is to know which ‘specific car’ was sold and which ‘specific car’ is still on the lot at the end of the period.

While students are getting preliminary exposure to alternative inventory costing methods, the primary purpose of the above example is to help students ‘see’ the impact of the Balance Sheet Inventory amount on COGS, the largest expense on the Income Statement. In addition, students now have been exposed to the existence of alternatives under Generally Accepted Accounting Principles. Often the Inventory/Cost of Goods Sold Expense chapter is the students’ first exposure to accounting alternatives.

After presenting Happy Harry’s Used Car Example, many students are convinced that the specific identification inventory costing method is the ‘correct’ answer and there is no need for any alternatives. The instructor should point out the unique features of the “Happy Harry’s Used Car Lot” example: inventory units are easy to differentiate (2014 Rolls Royce versus 1974 Volkswagen Beetle), and the cost per unit is significantly different (\$350,000 versus \$6,000). The instructor should then suggest that Harry’s other business is selling test tubes to college chemistry labs -- where every test tube physically looks the same, hundreds of thousands of test tubes are purchased and sold during the period, and there is very little variation in the cost per test tube that Harry paid to his suppliers during the period. Students quickly realize the specific identification method would be very difficult to use for the test tube example and thereby ‘appreciate’ the need to cover alternative inventory costing methods.

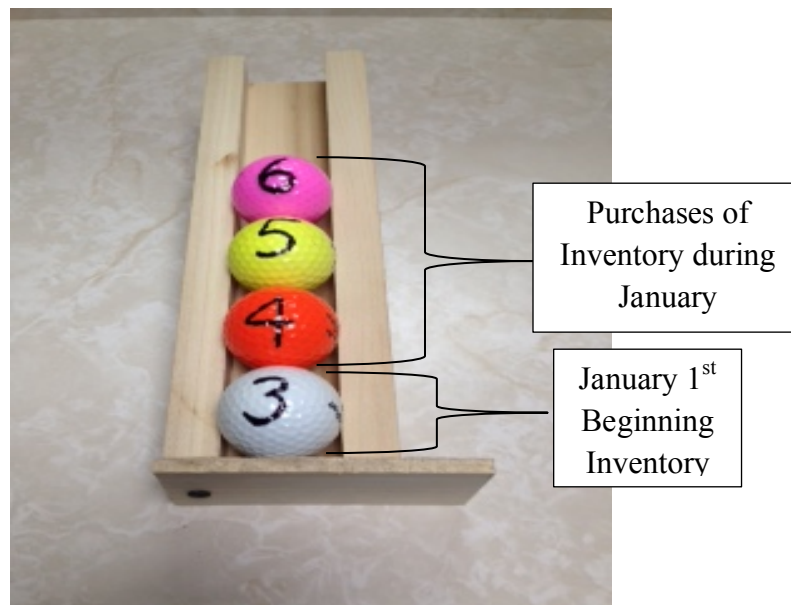
Before starting the FIFO and LIFO illustrations, inform the students (and repeatedly remind them) of the following two points:

- The choice of an inventory costing method does NOT have to be the same as the physical movement of the units through the inventory. At this point, students may not clearly understand the distinction we are trying to make between the flow of the units and the choice of an inventory costing method. However, the idea now has been planted in their heads. When we later use a meat packing company for our LIFO discussion, some students initially will state that the inventory costing method that ‘must’ be used for the meat packer is FIFO -- because that’s how the units (cuts of meat) flow through the company. At that point, we will return to emphasize again that we are talking about inventory COSTS rather than the physical units.
- Directly determine the Ending Inventory in the COGS calculation and then ‘plug’ COGS by subtracting the dollar amount of the Ending Inventory from the GAS subtotal. With hundreds of thousands of units purchased and sold during the period, and then only a small fraction remaining in ending inventory, the Ending Inventory calculation is definitely the more efficient approach.

First In First Out (FIFO)

For both the FIFO and LIFO simplistic initial examples, we again utilize our three student role players – the company, the vendor (supplier), and the customer. We also continue to use the COGS calculation to account for the costs flowing through Inventory into COGS. Our props are the 4 golf balls – this time each one is a different color and clearly marked with a different COST⁴. A ‘container’ is used (see photo below) to represent the company’s inventory. The container provides the students with a visual portrayal of the flow of inventory costs as items are purchased from vendors and subsequently sold to customers. By using a hinge on the bottom of the container, the flow of “COSTS” out of Inventory and into COGS can be demonstrated. When the hinge is closed at the end of the period, the students can see the COST of the item(s) remaining in inventory.

The student playing the role of the company places the first golf ball in the inventory container -- the white one with a \$3 cost that represents the January 1st beginning inventory. For purchases during the period, three additional golf balls are placed in sequence into the inventory container by the student playing the role of vendor – orange on January 8th at a \$4 cost, then yellow on January 19th at a \$5 cost, and finally the pink one on January 25th at a \$6 cost.



Simultaneously with the use of the golf balls prop, the COGS calculation on the board/screen is utilized. The partially completed calculation shows:⁵

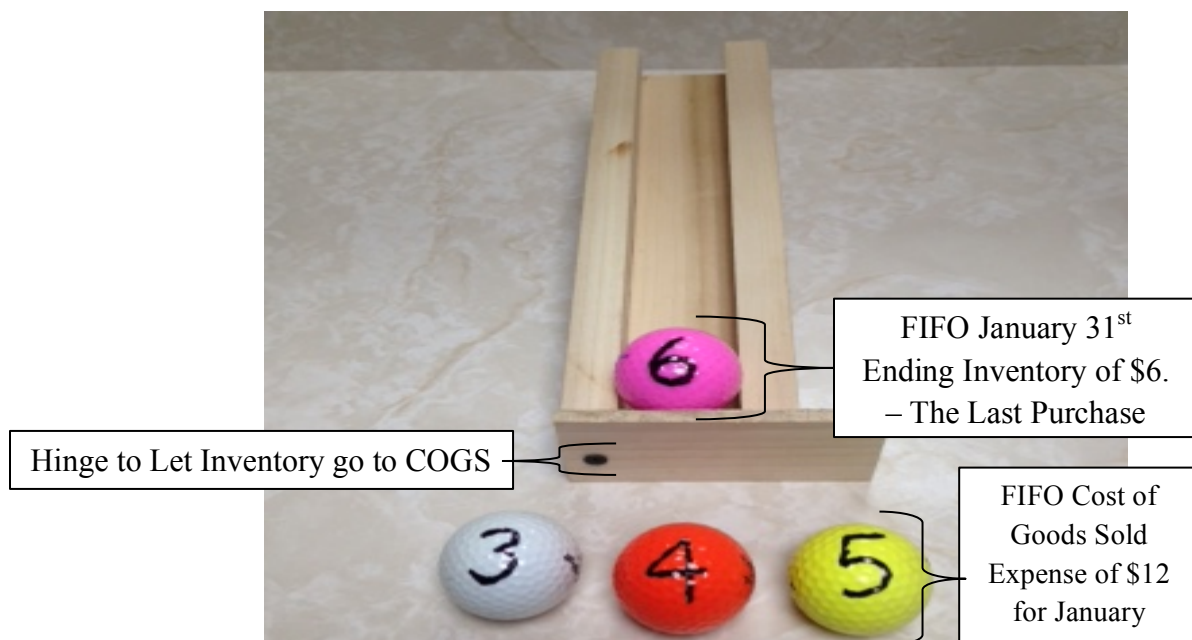
⁴ In our examples in Financial Accounting, we only provide situations with rising inventory costs throughout the period. We will mention that the financial statement impact (Inventory valuation and COGS amounts) would be reversed if there was price deflation, but save any illustrations of price deflation for upper level accounting courses

⁵ As our examples are only for a single year, both the FIFO and LIFO have the same beginning inventory.

| | |
|---|--------------|
| Beginning Inventory - white | \$3 |
| Purchase on Jan 8th - orange | \$4 |
| Purchase on Jan 19th - yellow | 5 |
| Purchase on Jan 25th - pink | <u>6</u> |
| Total Purchases | <u>15</u> |
| Equals Cost of Goods Available for Sale (GAS) | \$18 |
| Less Ending Inventory | <u>- ???</u> |
| Equals Cost of Goods Sold Expense (COGS) | \$??? |

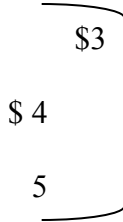

With the 'problem' now set up, and easily visible to the students, state that a physical count of the inventory on January 31st (end of the accounting period) reveals only one golf ball was remains in inventory. Slowly indicate to the class: "Under the FIFO inventory COSTING method, the first COSTS into inventory (including beginning inventory) are the first COSTS out of inventory and 'transferred' into Cost of Goods Sold Expense". Our student company role player is instructed to open the hinge at the bottom of the inventory container and remove from inventory in sequence the first three costs, the \$3 white, the \$4 orange, and the \$5 yellow and deliver the golf balls to the student playing the role of customer. Follow up with the key question:

"If under FIFO Costing method, the first costs into inventory (including beginning inventory) are the first costs out of inventory, then under FIFO what cost is attached to the unit that remains in Ending Inventory?"



Students clearly see that under FIFO the last (i.e., most recent) purchase cost of \$6 (pink) from January 25th remains in the inventory container at the end of the period. Thus under FIFO, the one unit in ending inventory (asset to appear on the January 31st balance sheet) is assigned a cost of \$6. Complete the COGS calculation on the board/screen (see below) while stating “Under FIFO the first COSTS into inventory are the first COSTS out of inventory and transferred to COGS. The last (most recent) COST into inventory under FIFO is associated with the unit in ending inventory. We are calculating directly the COST of the one unit in Ending Inventory under FIFO (\$6). We indirectly determine COGS by subtracting the \$6 ending FIFO inventory from the \$18 Cost of GAS subtotal, yielding COGS of \$12 (\$18 - \$6 = \$12).”

In this simple example, where the number of units sold to customers is relatively small, prove the COGS ‘plug’ is accurate by asking the student playing the role of the company - “What is the total of COGS, i.e., what is the total COST of the three golf balls you sold during January to the student playing the role of customer?” Students have virtually no difficulty visualizing the FIFO COGS is \$12 (\$3, \$4, and \$5 – white, orange and yellow). To complete the FIFO illustration, we add connector brackets and insert textboxes on the completed COGS calculation below to visually drive home the points – the first COSTS into Inventory are the first COSTS out of Inventory into COGS - the last COST into Inventory remains in Inventory to be associated with the unit not yet sold (pink).

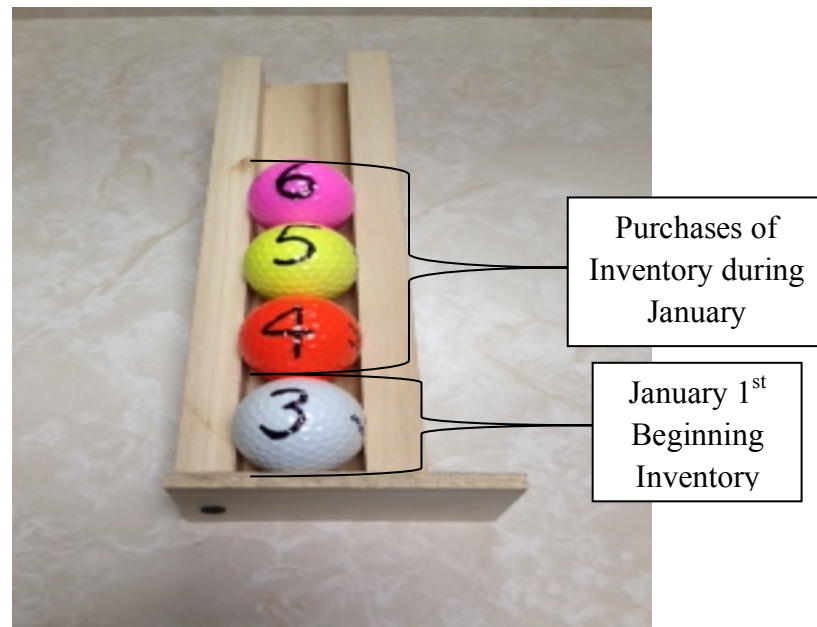
| | | | |
|---|------------|---|---|
| Beginning Inventory - white | \$3 |  | <div>FIFO Cost of Goods Sold Expense = \$12</div> |
| Purchase on Jan 8th - orange | \$4 | | |
| Purchase on Jan 19th - yellow | 5 | | |
| Purchase on Jan 25th - pink | <u>6</u> | | <div>FIFO Ending Inventory = \$6</div> |
| Total Purchases | <u>15</u> | | |
| Equals Cost of Goods Available for Sale (GAS) | \$18 | | |
| Less Ending Inventory - pink | <u>- 6</u> |  | |
| Equals Cost of Goods Sold Expense (COGS) | \$12 | | |

Not only has FIFO costing been illustrated, the importance of student understanding of the COGS calculation has been reinforced. In class, discussion of the FIFO costing example takes 10 to 15 minutes of time - time well spent in terms of student understanding of Inventory costing. In class, we continue with another more complex inventory example using FIFO (the ‘typical’ first textbook example) and we have found that almost all students have little difficulty handling that example after having first gone through our ‘simple’ illustration.

Last In First Out (LIFO)

To concentrate on just the impact of the FIFO/LIFO choice, use the same basic approach and illustration for LIFO as was previously used for FIFO. Again use the same golf balls: white with a \$3 cost that represents the January 1st beginning inventory, orange for the January 8th purchase at \$4, yellow for the January 19th purchase at \$5, and pink for the January 25th purchase at \$6.

The two starting points for LIFO will be the exact same 'inventory container' and the partially completed COGS calculation previously used for FIFO.

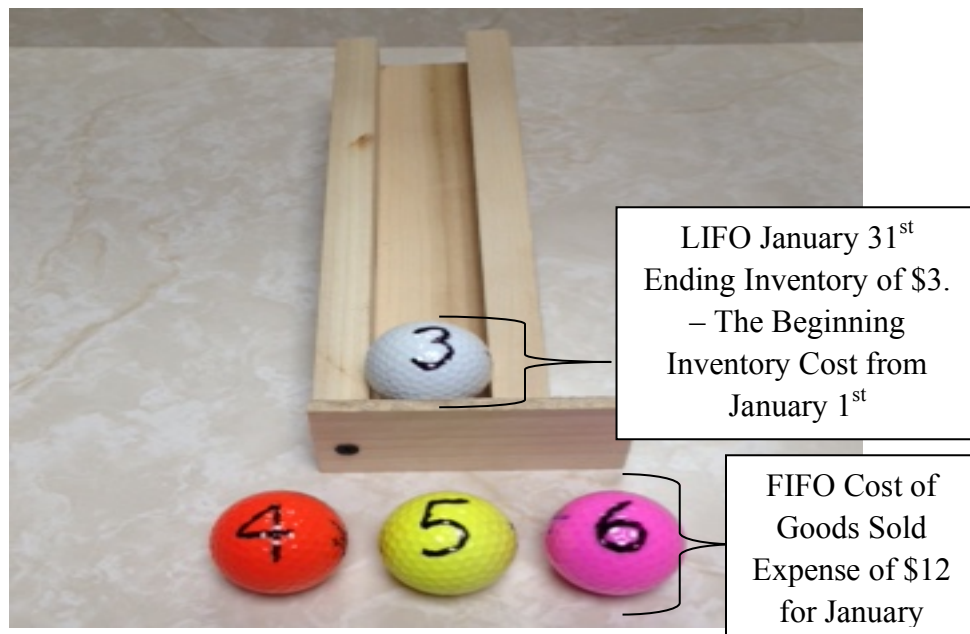


| | |
|---|--------------|
| Beginning Inventory - white | \$3 |
| Purchase on Jan 8th - orange | \$4 |
| Purchase on Jan 19th - yellow | 5 |
| Purchase on Jan 25th - pink | <u>6</u> |
| Total Purchases | <u>15</u> |
| Equals Cost of Goods Available for Sale (GAS) | \$18 |
| Less Ending Inventory | <u>- ???</u> |
| Equals Cost of Goods Sold Expense (COGS) | \$??? |

We repeat that a physical count of the inventory reveals only one golf ball remains in inventory on January 31st (end of the accounting period). This time we slowly indicate to the class how LIFO costing works: “Under the LIFO Inventory COSTING method, the last COSTS

into inventory are the first COSTS out of inventory and are ‘transferred’ into COGS”. Our student playing the role of the company is instructed to tilt the inventory container back (could have 2nd hinge at top) and remove from the inventory container in sequence the ‘last’ three costs (the \$6 pink, the \$5 yellow, and the \$4 orange) and to deliver those three golf balls to the student playing the role of customer. We follow up with the same key question:

“If under the LIFO Costing method, the last costs into inventory are the first costs out of inventory, then under LIFO what cost is attached to the unit that remains in Ending Inventory?”



In the photo above, students clearly see that under LIFO the first cost (the \$3 cost of the white golf ball in beginning inventory on January 1st) remains in the inventory container as the COST assigned to the one unit in Ending Inventory. Complete the COGS calculation on the board (see below) while repeating: “Under LIFO the last COSTS into inventory are the first COSTS out of inventory and are transferred to COGS. We calculated directly the \$3 COST for Ending Inventory under LIFO. We indirectly determine COGS by subtracting the \$3 ending LIFO inventory from the \$18 Cost of GAS subtotal, yielding COGS of \$15 ($\$18 - \$3 = \15).”

| | | |
|---|------------|--|
| Beginning Inventory - white | \$3 | LIFO Ending Inventory = \$3 |
| Purchase on Jan 8th - orange | 4 | LIFO COST of Goods Sold Expense = \$15 |
| Purchase on Jan 19th - yellow | 5 | |
| Purchase on Jan 25th - pink | <u>6</u> | |
| Total Purchases | \$15 | |
| Equals Cost of Goods Available for Sale (GAS) | \$18 | |
| Less Ending Inventory - white | <u>- 3</u> | |
| Equals Cost of Goods Expense (COGS) | \$15 | |

Before moving on to other topics in the chapter (including a more robust example for LIFO, and a weighted-average example), we point out again that the FIFO/LIFO inventory choice does NOT have to follow the physical flow of the units through the inventory. We ask the students “If our example above had been for a meat packing company adopting LIFO in 1945 and still using it today in 2015, would inventory costs from 1945 be included in the 2015 balance sheet inventory amount?” Students will respond “yes”. Then state “Hope the meat packing company still does not have in 2015 the meat (units) from 1945!” Later in the chapter when discussing LIFO’s impact on ratio analysis, ask the class “What impact would the severely outdated balance sheet LIFO Inventory value have on the meat company’s inventory turnover ratio?” See if the students understand they would be dividing Inventory COSTS from 1945 into Cost of Goods Sold Expense COSTS from 2015 -- and using the ratio calculated to make an ‘intelligent’ analysis!