Teaching to the Higher Rungs of Bloom’s Taxonomy:
Techniques for Financial Accounting Classes

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Abstract

While some research suggests teaching techniques should match the student’s learning style, this paper argues it may be more fruitful to use techniques aimed at encouraging latent personality characteristics. The paper will discuss the origins of Bloom’s taxonomy, the relationship between the Bloom’s higher order skills and traits exhibited by accountants per the True Colors personality profile, explain why millennial students are reluctant to be independent thinkers, and provide three specific Active Learning Exercises designed for use in either graduate or Intermediate level financial accounting courses to encourage confidence in synthesis and evaluation skills desired by accounting employers.

Introduction

Even though learning styles and personality types have engendered considerable research and trendy applications, these models usually do not take into consideration employer needs in the field of accounting or long term effects. While some research suggests that personality and learning styles are basically fixed and that students will perform better if instructors use techniques that match the student’s learning style, closer reading of some of the pioneering works suggests that with experience one can gradually become comfortable with multiple approaches. (Kolb 1984 & 1985, Scott 2010) Many critiques report that matching teaching to the learning style may not help students as much as early studies suggested. (Stahl 1999; Franklin 2006; Glenn 2009; Fridley & Fridley 2010; Scott 2010) A study by Naik (2009) reports that students want the instructor to provide very detailed learning objectives, provide his/her own examples rather than asking the students to illustrate the concepts, and prefer questions on the exams to be essentially just like those done in class. The problem with this approach is that it conflicts with the needs of employers who want to hire personnel that can think for themselves, synthesize information, and come up with creative out-of-the box solutions in the workplace. (Siegel & Sorensen 1994; AICPA Core Competencies 2003) An alternative to the assumption that learning styles are fixed and must be accommodated is the premise that certain careers like accounting require certain traits. If these traits can be identified they can be used to recruit individuals most likely to be successful in the profession. Or, alternatively, this paper argues there may be techniques we can use in accounting classrooms that will encourage students to develop their latent learning and personality characteristics in such a way as to match the needs of the profession they are training to enter.

While college level accounting classrooms should be a place where students with a wide range of personalities can feel comfortable and pass the classes, the reality is that specific personality types often gravitate to or self-select to specific types of careers. Accounting employers want to hire individuals who are conscientious in their work, who plan ahead and meet deadlines, and can apply higher order reasoning to solve workplace problems. If these
are skills that do not come easily to many students, perhaps our focus should be on developing those skills rather than simply encouraging students to use their dominant personality preference. Today’s students come to us with a different way of seeing the world. As an accommodation to busy students with jobs, Facebook or exercise obsessions, and even family responsibilities, many textbook publishers are beginning to produce books which are shorter, more watered down, and teach directly to the tests. Students like these materials better and may in fact do better on multiple choice questions derived from these types of materials. But have we missed the point? Employers are not interested in how efficiently students can learn to answer basic knowledge level multiple choice questions but want something more. Employers want to new hires who have developed higher order skills that will help them deal with unstructured, challenging problems in the work place. Our basic problem as accounting educators should be ‘how can we transform the students coming in the front door, into mature individuals who can meet the needs of the profession?’ The remainder of this proposal will discuss 1) the origins of Bloom’s taxonomy, 2) suggest a tentative relationship between higher order thinking skills and the True Colors inventory profile, 3) speculate as to why today’s students have trouble with higher order thinking skills, and 4) present three examples of active learning exercises that can be used to encourage the development of the higher order thinking and organizational skills which are often overlooked in the design of textbooks and other curricular materials for financial accounting. The paper concludes with additional observations on encouraging higher order thinking in the accounting curriculum.

**The Origin and Basics of Bloom’s Taxonomy**

The development of Bloom’s (1956) taxonomy of educational objectives stemmed from conversations at the 1948 American Psychological Association in Boston, Massachusetts, US. Educators noted that they wanted more than surface learning from their students. Educators at this meeting wanted their students to really understand, to internalize knowledge, to comprehend, and to grasp the core essence of the topics covered. It was unclear whether these expressed aims were all the same thing or something different. Therefore, a study group was formed which met in conjunction with a national professional meeting from 1949-1953 to derive a list of educational objectives. In deriving the taxonomy the group noted several questions about obstacles to creating a meaningful taxonomy: 1) Is it possible to codify the unobservable? 2) Would a list of objectives short circuit teacher’s thinking about the educational process? and 3) Would focusing on codification elements cause fragmentation of the educational process? To try to minimize the impact of these obstacles the group developed a set of guiding principles for the taxonomy which included the following: 1) Groupings should reflect teacher perspective on differences in student behaviors, 2) Groupings should be logical and internally consistent, 3) Groupings should reflect understandings of human psychology, and 4) Groupings should be neutral, not implying that all should be covered in one particular program.

The study group concluded that there were multiple domains of interest which included the 1) Cognitive, 2) Affective, and 3) Psycho-Motor domains. The group only wrote detailed documents on the cognitive and affective domains; the cognitive domain has had the most
influence on research in higher education to date. Illustration 1 summarizes behaviors associated with the six main cognitive outcomes from the 1956 taxonomy. When Bloom’s taxonomy was revisited in 2001, a team lead by Anderson & Krathwohl condensed the cognitive outcomes to just four: 1) Factual Knowledge, 2) Conceptual Knowledge, 3) Procedural Knowledge, and 4) Metacognitive Knowledge with the metacognitive level being most closely associated with the synthesis and evaluation levels from the 1956 taxonomy. Even after the 2001 revision, the more detailed six level 1956 taxonomy continues to be used and influence educational practice. It would seem that the essence of professional accounting work is the ability to synthesize and evaluate enterprise information. If our students are allowed to matriculate from an undergraduate or graduate program in accounting without a firm grasp of the metacognitive or synthesis/evaluation rungs of Bloom’s hierarchy they will likely be ill prepared for professional accounting work.

Illustration 1
Six Cognitive Outcomes from 1956 Bloom’s Taxonomy

<table>
<thead>
<tr>
<th>1. Knowledge</th>
<th>Recalls specific facts.</th>
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<td>2. Comprehension</td>
<td>Uses facts without necessarily being able to relate them to other knowledge.</td>
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<tr>
<td>3. Application</td>
<td>Generalizes across knowledge bases.</td>
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<td>4. Analysis</td>
<td>Demonstrates the hierarchy or interdependency of concepts, infers hidden assumptions, and can tell the difference in fact and hypothesis.</td>
</tr>
<tr>
<td>5. Synthesis</td>
<td>Determines relationships without being told and can put them together into a final work product.</td>
</tr>
<tr>
<td>6. Evaluation</td>
<td>Makes judgments about internal consistency of statements or relationships to external criteria.</td>
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When Davidson & Baldwin (2005) reviewed Intermediate Accounting textbooks from 1934-2004, they found less than 10% of the end of chapter materials addressed the top two levels in Bloom’s (1956) taxonomy. Further, they found little change after the 1986 Bedford Commission report on the future of accounting education or the 1989 white paper report from major public accounting firms. (Arthur Andersen et al) A follow up study by Gupta and Marshall (2010) with fewer texts but over a broader array of courses (accounting information systems, auditing, cost, intermediate, and tax) also concluded that most textbooks in accounting emphasize lower and middle level rather than the higher rungs of Bloom’s taxonomy. Gupta and Marshall (2010) found greater coverage of higher level skills in Auditing and Cost courses and the lowest coverage in Intermediate accounting. While accounting programs are beginning to pay more attention to the language from Bloom’s taxonomy as they write their course and program objectives in accordance with the Association to Advance Collegiate Schools of Business (AACSB) Assurance of Learning standards, changing the language of course objectives may not necessarily change the students’ approach to learning. A study by
Christopher, Thomas, and Tallent-Runnels (2009) found that even when specific higher order cues are inserted into online discussion forums, students often continued to give responses indicative of lower level cognitive behaviors. Producing higher level thinking skills among our accounting graduates will likely require more than a surface paper trail of Bloom’s taxonomy terms sprinkled into our official syllabi. The next section looks briefly at why higher order skills may be even more challenging to elicit for today’s generation of students.

**The Relationship Between Personality and Bloom’s Taxonomy**

Personality typing is a technique that been put to practical use in the workplace to improvement interpersonal communication. Though the Myers Briggs (Myers et al 1998) inventory is statistically sound and widely used, it is time consuming to take and its complexity tends to help people understand themselves but not necessarily those around them (Hobson 2003). A simplified self-typing technique variously known as True Colors (Miscsin 2005, Kalil 1998), True Colours (Menalo 2000), or the Real Colors Matrixx system (Hobson 2003) divides personalities into four basic color groups. Participants in training workshops are taught the personalities of the four color groups, identify their dominant personality color, and are taught how to deal more effectively with members of other groups. (Buddy 2007) Some companies issue employees badges to identify the dominant personality color so that colleagues can more readily identify the personality types of colleagues and modify their own communication techniques to match the other person’s style. Illustration 2 summarizes the traits of the four color groupings.

While the color types have not been subjected to as extensive statistical testing as the Meyers-Briggs, they are more easily adapted for use. Those with practical experience with the technique suggest the color profiles can be used to assess the goodness of fit of an individual for specific careers. Social workers and teachers tend to fall in the blue group, entertainers and sports personalities in the orange group, practicing accountants in the gold group, and scientists or physicians in the green typing. When administered in accounting settings, green and gold are the dominant colors. Golds typically dominate in settings responsible for completing routine accounting tasks and greens in academic accounting settings. Highly dominant blue and orange are rare in accounting work. The color personality typing approach suggests that even though most individuals have a preferred approach that they revert to under stress, all personality types can be taught to ‘brighten up’ their non-dominant characteristic. Though there might be benefits to more empirical research on the color typings, a comparison of descriptions for the color types in Illustration 2 and the six levels of the Bloom’s taxonomy in Illustration 1 suggests that the preferred work approach of gold and green types would require the use of all six levels of cognitive behaviors but with particular emphasis on the synthesis and evaluation skills needed to bring complex accounting projects to completion.
### Illustration 2
Primary Characteristics of Four Color Personality Types

<p>| | |</p>
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| **1. Blue** | Main focus on is FEELINGS.  
Very uncomfortable with conflict.  
Will do anything for others, even to detriment of themselves.  
Do not want anyone’s feelings to be hurt.  
Can appear indecisive because they want to make sure others are happy with their decisions.  
Like praise. |
| **2. Gold** | Main focus is on taking care of their RESPONSIBILITIES.  
Can be trusted to take tasks to completion.  
Want to do things ahead of deadline.  
Likes to make to do lists and check off accomplishments.  
Likes to develop a structured, best method for attacking problems.  
Comfortable with rules.  
Everything has a place and is in its place. |
| **3. Green** | Main focus is on being viewed as COMPETENT.  
Puzzle solvers.  
Want to know WHY and HOW.  
Uncomfortable with too rigid a structure.  
May take on too many projects.  
Dry, ironic sense of humor not always understood by other types. |
| **4. Gold** | Main focus is on ACTION.  
Like activity and flexibility.  
Focus on getting all they can out of life.  
Enjoys multi-tasking and unstructured interaction.  
Competitive and creative.  
Bored with repetition and routines. |

### Why Do Today’s Students Lack Higher Order Thinking Skills?

Higher order thinking skills do not come easily for many students. Healy (1999) makes forceful arguments that the influences of the digital age have led to a generation that is more distractible, has reduced math and verbal skills in spite of higher SATs, and has diminished ability to make discriminations between shades of gray when answers are not clearly black and white. Today’s student may think that all the answers one really needs to know can be found on the internet and there is no need to memorize a basic knowledge which forms a foundation for higher reasoning. Further, since cell phones mean that Mom or Dad can always be easily reached to help with decisions, ‘helicopter’ parents may have inadvertently trained millennial children to use electronic gadgets as a substitute for thinking for themselves. (Cline & Fay 1990; Pricer 2008; Hodgkinson 2009; Somers & Stettle 2010) Yet in financial accounting, employers from the prior generation tend to think there are certain basics one needs to know in order to produce accounting data and financial analyses which do not yet exist in cyber space.
Explicit learning objectives inserted in modern textbooks may have inadvertently added to the problem. The student never has to synthesize anything. They are told what the objectives are at the beginning of the chapter, the learning objectives are emphasized in margin notes as the reading progresses, and reiterated again in the chapter summary. While making the structure explicit may help some students see relationships, there is also the risk that they are being robbed of experiences which allow them to become more comfortable with synthesizing key concepts and the implicit structure of the material for themselves. Another challenge is that increasing numbers of students simply do not buy the textbook, perhaps as many as 20%. (Boyd 2010) While the reasons are often assumed to be financial, the problem seems to be exacerbated by well-meaning professors and publishers who place a wealth of information on line or otherwise conduct the class in such a manner that mediocre students can get by with simply not purchasing the text. Students use these study aids or summaries as a substitute for a detailed text. Some of those who do purchase the textbook are so used to skimming web pages, they do not read at the deeper level needed for accounting material. (Phillips & Phillips 2007) A 2006 study by the State Council of Higher Education for Virginia found that 30% of students either never opened any of their assigned course materials (2%) or used them only for reference (28%).

Further, the explosion of rules in financial accounting means that textbook authors feel they must cover any material that might appear on the CPA exam, then make up for the expanded coverage of recent rules by eliminating thoughtful discussion about the underlying rationales for basic accounting procedures and alternatives. With the explosion in rules that must be digested, the historical background about the pros and cons of alternatives which have been previously tried then discarded also get lost and the student has no background for assessing the pros and cons of proposed changes in accounting standards. Current financial accounting textbooks relate the choices between cost and fair value reporting of financial instruments, but generally do not refer back in any meaningful way to the classic arguments on the pros and cons of historical cost compared to the various alternatives of accounting for price fluctuations.

Millennial students enjoy social networking. On average modern students may be more ‘blue’ in personality than the previous generation. The need to please would fit with their tendency to ask friends or Mom and Dad before making a decision. Today’s students are sometimes referred to as the ‘me’ generation. They are comfortable placing intimate details on websites and are not afraid to compete in cyberspace for attention. These characteristics are indicative of the orange personality. Oranges may crave sensory input, but have trouble focusing long term. It is not clear if this tendency for young students to display orange behavior is related to the increases in Attention Deficit Hyperactivity Disorder, though some studies suggest ADHD is in fact related to changes in our society from hunter/gathers to more sedentary occupations. (Hartmann 2003) Both orange personalities and ADHD are more common in boys, yet over time boys are becoming less likely to attend and be successful in college. Prior generations influenced by a societal memory of the Great Depression or World War II, may have felt more of a need to be conservative, focusing on competence and
responsibilities. Dominant personalities are molded by their cultural influences. Because both the color typing model and Bloom’s taxonomy suggest that styles can be gradually changed, accounting educational techniques might benefit from techniques that respect the individual’s dominant personality style but have the potential to help blue and orange types brighten their gold and green qualities including the related higher order thinking skills needed to be effective in accounting careers.

Because published curriculum materials are part of the problem, it becomes necessary for faculty who want to promote higher order thinking skills to develop alternative methods to get students to move up the rungs of Bloom’s taxonomy. Traditional law schools have used the Socratic method, asking students questions just beyond their reach and criticizing the students’ answers in front of the whole room. For very motivated, mature students this may foster deeper reading of the material in order to avoid embarrassment. That approach is rarely used in today’s accounting classroom. Rather than getting students to think, professors may find the Socratic approach is more likely to prompt blue and orange dominant millennial students to have their parent call the Dean or Department Chair. The trick is to find techniques that will engage students in manipulating information to gain experience reaching their own conclusions without triggering a fear or embarrassment factor that will simply make them dislike higher order thinking even more.

_A Description of Three Active Learning Exercises_

While the traditional case method is one mechanism that can be used to focus on higher order thinking skills, the majority of traditional financial accounting classes still use traditional texts. This may be based on an erroneous assumption that students must first learn the rules before they can handle integrative thinking (Moore 1994), but it is still a fact of most modern financial accounting curricula. The appendix to this paper presents three short experimental cases that the author calls Active Learning Exercises. These were developed primarily for use in a master’s level course entitled Seminar in Financial Accounting Theory in order to help the students ‘unlearn’ the idea that all accounting problems have a single correct answer. Though initially crafted for a graduate seminar, the exercises can also be used in the undergraduate Intermediate financial accounting sequence, and the first could actually be used near the end of an introductory financial accounting class. The purpose of the exercises is to force students to think outside the box and reach substantive conclusions about whether different accounting procedures matter or not. They are intended to take students outside the textbook to use data from published financial statements to apply judgment and reach conclusions, but to be short enough that they can be used as a basic homework assignment or short project for incorporation in traditional lecture courses.

Active Learning Activity One

Because academic test questions and homework problems typically have one correct answer, students sometimes synthesize the wrong conclusion from their undergraduate and prior educational training. They infer that real life has just one answer. Though the facts of
this learning activity are fairly simple, the mini-case requires the students to prepare balance sheets, income statements, and return on asset figures for three different versions of cash basis and another set of three for different versions of accrual basis. To attempt this case the student needs some background in the basic format of the balance sheet and income statement. Working on the open ended construction of different alternative financial statements will force the student to be aware that the underlying basis, estimated asset life, and inventory methods have critical effects on the basic statements and related measures like return on assets. The B part of the question hints that they should consider using market values for some of the balance sheet amounts. Since this is the first year after formation of the corporation, working through these different presentations will force the students to stumble across basic controversies on how to make the income statement and balance sheet articulate as they struggle with how to present the corresponding gain or loss from the change in value. Should it be on the income statement, should it be closed to retained earnings, or should it be treated as some part of equity but separate from retained earnings? Part C requires the student to explicitly articulate some of the issues they should have discovered on their own by working through the activity. Some of the reluctance of millennials to tackle problem solving activities without referring to references or authority figures is that they may feel others know better than them and that they will be embarrassed if they give the wrong answer. Once they have struggled through the issues in this activity, students should realize that the instructor does not have ‘the answers’ as there can clearly be many answers. This also helps the students see for themselves that the seemingly rigid rules of accounting work are actually enmeshed in a matrix of value judgments that have a major impact on the so-called ‘bottom line’.

Wolk, Dodd, & Rozycki’s (2008, 22) theory text includes a case in their first chapter that is roughly similar in that they ask students to construct income statements on historical cost, general price level, exit valuation, replacement cost, and discounted cash flow basis. However, because their textbook includes an example problem in the main part of the chapter, it seemed to me that when my students answered the textbook case they were internalizing a different message that they must give the right answer for five separate procedural techniques which is subtly different than what students internalize with an open ended approach. The inherent nature of the behaviors in Bloom’s (1956) taxonomy is that two activities can look similar but be eliciting different levels of thinking based on the student’s experience. Once a student synthesizes the issues, they may then memorize them and apply them at the Knowledge or Application level. If the student is told the correct procedure too soon, this may actually interfere with their ability to synthesize the relationships on their own and bypass that ah-ha moment when the student sees why the issues are really important in a practical application. Active Learning Exercise One works best in fostering higher order thinking about accounting alternatives if the student does NOT have a detailed model to follow. Not having a specific model to follow prevents the student from assuming there is just one mold for the ‘correct’ answer. Where the student has a model to follow they will refer to knowledge, application, or procedural levels of thinking rather than to synthesis and evaluation approaches which are labeled ‘active learning’ in this exercise. By leaving the exercise open-ended when students share their answers it becomes obvious to them that are even more than six permutations possible from even a simple set of parameters, thereby leaving the focus on what is causing the
differences, an essentially syncretic activity, rather than placing the focus on procedural activities which fall at lower rungs in Bloom’s (1956) taxonomy.

**Active Learning Activity Two**

Activity Two can easily be used in either an undergraduate or graduate financial accounting class. This activity can be focused slightly differently to accommodate the experience level of undergraduate vs. graduate students. For undergraduate students the focus is primarily on getting the Intermediate students out of the textbook to look at real financial statements. The case requires the students to consult on-line resources to find current financial statements and to assess the relative importance of Other Comprehensive Income (OCI) and Accumulated Other Comprehensive Income (AOCI) as compared to regular Net Income. In spite of an abundance of web surfing, most accounting students never really search out and look at complete financial statements unless forced to do so. Even though financial accounting textbooks insert illustrations of pieces of financial statements and related notes, the accounting student never really grasps the big picture without looking at complete statements. It has also been my experience that in covering the concept of OCI and the distinction between Unrealized and Realized Gains or Losses from textbook materials my undergraduate Intermediate students nod politely but frankly just do not understand the underlying essence of what OCI is all about or the different presentations currently allowed. If they do not understand OCI in Intermediate I, they are not likely to understand the implications of fair value accounting in Intermediate II or in practice.

Intermediate Accounting I at my home institution is a mix of accounting and non-accounting majors. When Activity Two is used in Intermediate I, frankly some students are not very skilled at looking at the statements and cogently explaining what is causing OCI and a few typically make the mistake of trying to use a 10-Q instead of a 10-K. In explaining their results some Intermediate level students suggest management ought to better ‘control’ their OCI gains and losses which misses the point that changes in OCI are linked to market fluctuations that are largely beyond management control. In going over the project results, this gives the instructor another chance to explain the concept and correct misunderstandings. In simply finding the OCI amount and attempting to explain its main causes, undergraduate students encounter certain implicit judgment tasks that are not obvious from the simplicity of the case – becoming familiar with the search processes and form names (10-K, 8-K etc) on EDGAR.gov, deciding what companies to use, and being able to deal with the inevitable situation where some companies have listed their financial statements ‘by reference’ rather than directly in EDGAR. Graduate students usually do not have a problem with negotiating the sites, computing, or explaining their results. For them much of the learning comes from comparing and discussing their results in class with other class members. While it is not a scientific sample, by comparing results from more companies than they have researched individually, graduate students generally come away with a better understanding of the sensitivity of OCI to the normal fluctuations of the stock market from period to period and get a rough feel for what proportion of companies sampled by class members have been presenting the OCI as part of a separate statement versus a part of stockholders’ equity. When the overall class sees for themselves that most US
companies have been reporting the information in the stockholders’ equity section, this gives them hands on background to better understand the convergence controversy between the IASB and FASB on whether companies should be allowed to display the information in the stockholders’ equity section rather than on a part with the regular income statement.

**Active Learning Activity Three**

While the FASB’s and IASB’s public rhetoric is that deferred tax balances represent true assets and liabilities, the practical implications of these accounts has historically been and currently remains one of significant controversy. Intermediate and even some graduate financial accounting textbooks spend so much time on the detailed mechanics of computing and classifying deferred taxes, instructors may feel there is little time left to discuss the practical significance of deferred tax balances. The official rhetoric is that accounting exists to provide information that is useful for decision making, but financial accounting classes run the risk of becoming so enmeshed in the mechanics of our complex rules that the lose sight of the fact that it may not be clear how financial analysts should use the information and whether different presentations might lead to different conclusions. By sending the students to find four companies for themselves and to think about how the debt to equity ratio would appear depending on whether the deferred taxes were considered something other than real assets or liabilities, the students are forced to reach some tentative conclusions about whether the overall topic of tax allocation has a major or a minor impact on the financial statements and the potential effect on loan covenants based on financial ratios. The question of whether capital markets are really capable of seeing beyond the financial statement presentation may be beyond the scope of an undergraduate intermediate accounting class, but can certainly be added to the in-class discussion for graduate students.

**Concluding Observations**

There are many reasons why a focus on higher order thinking skills is not prevalent in the financial accounting curriculum. An emphasis on simplistic and short run measures of our classes and programs is a factor. Accounting and business programs ought to be about asking students to change and gradually transform into a more mature citizen and member of the financial workforce. Yet asking someone to change usually provokes some resistance. Students may give better teacher evaluation scores if they are not asked to change, but are allowed to be passive learners, content to be told exactly what material will be on exams. Further, traditional textbooks are set up to present students with factual knowledge in an orderly way. Many faculty find it easier to stick to lower level cognitive activities consistent with traditional financial accounting textbooks, because otherwise they will have to develop their own pedagogical materials and those types of activities receive little reward in the academy. Other faculty worry that if cases and term papers are used there is increased potential for cheating and the concomitant hassle of dealing with unethical behavior.

On the other hand, the reasons to focus on promoting higher order skills are compelling. Life is not multiple choice; we should not kid ourselves that our students are well educated if
they can answer multiple choice questions but do not understand the controversies and challenges facing them in the accounting profession and in society as a whole. Our programs will eventually be evaluated not by student ratings, but by employer and societal satisfaction with our ability to provide mature citizens equal to the demands of global competition and increasing technical complexity. As the business profession continues to complain that our students need higher order skills, it is easy to hide behind complex accreditation and assurance of learning standards that truly assure very little in the way of a quality outcome. Detailed chapter learning objectives can morph from a valuable tool into a rigid focus on factual knowledge and procedures if they are taken too seriously. Assurance of learning standards may force us to write easily measured goals and objectives which miss the point that holistic, higher order skills cannot be easily measured by simplistic rubrics.

The Active Learning Exercises presented in this presentation are token examples of strategies used in undergraduate and graduate accounting classes arising out of a burning desire to understand the paradoxes and problems of our profession, some of which are summarized at in a recent paper in Accounting Horizons (Moore 2009). The three Active Learning Exercises alone would not go far in developing the critical thinking skills needed if they were the only techniques used. These are given as examples of simple steps accounting professors can take to incorporate materials aimed at developing higher order thinking skills among their students without taking a complete shift to a case based curriculum. Risk of the plagiarism epidemic seen with traditional term papers is lessened because students are analyzing new financial statements every year in a format prescribed by the instructor. These activities are used as focal activities in a graduate seminar in accounting theory where the overall theme is on looking at the paradoxes and intractable problems in accounting. It is hoped that this paper will prompt thought and discussion with other accounting educators on how to increase the use of projects and other techniques that promote thinking at the synthesis and evaluation levels of Bloom’s 1956 taxonomy.

Other techniques that I have used in my graduate theory seminar is to ask students to do presentations based on theoretical issues synthesized from the dissent section of current and superseded accounting standards. Where current texts do not provide adequate background on the theoretical controversies for a specific topic, author prepared papers are used to supplement the course. (Moore 2002; Moore & Quinn 2001) One semester each student took a separate financial fraud case and synthesized the key problem areas that led to the fraud. These were then melded into a joint paper and presentation. (Moore et al 2003) In governmental accounting classes, current students know very little about the watershed New York City and Orange County bankruptcies. Students are asked to read cases about three different fiscal crises and synthesize what is similar and different in the underlying causes of the crises. (Moore 2001, 2006) In governmental accounting classes students prepare a financial analysis of two states and discuss how current economic events are impacting the two states’ budgets. (Moore 1999) Doing the analysis in addition to the usual memorization of material on GASB rules would be too burdensome without the use of templates such as those used in work settings. This too, provides realistic training in the holistic use of internet retrieval of financial information, spreadsheets for analysis, and a template structure for reporting the results.
Other graduate students’ talents in analysis and evaluation can be fostered through special problems classes that culminate in written papers comparing accounting treatments by different standard setting bodies or cultures. (Moore & Foster 2006, Moore & Steinbauer 2008)

A limitation of this paper is that no direct empirical tests of efficacy are provided, even though this is by design. The nature of empirical tests is that they must focus on parsimonious, well-defined measures. Fostering higher order skills means our students are able to put multifaceted concepts together for a holistic understanding that will defy simplistic short run empirical tests. Finding the best mechanisms for designing curricular materials that promote higher order thinking skills will likely be verifiable only in the long run through a qualitative assessment conducted jointly by educators, alumni, and employers. These cases illustrate simple projects that financial accounting instructors might use to foster higher order thinking skills that will help their students deal with complex situations with increasing confidence. Frankly, use of the techniques above have tended to yield below average student ratings from undergraduate students and above average ratings from graduate students, many of whom are the same students who were formerly in the undergraduate sections. Still, in spite of below average ratings in undergraduate courses, the author has received College level awards for undergraduate and graduate teaching and a state level award for life time achievement in accounting education largely based on a commitment to techniques similar to those illustrated in this paper.

References


In January a corporation is formed by 100 shareholders who each buy 1000 shares of $5 par stock for $20 per share, or $2,000,000 total. The money is immediately invested in $500,000 of equipment with a life of 10-15 years and $1,200,000 of inventory while $300,000 is kept in reserve for basic expenses. The first year, advertising cost was $100,000, they paid $200,000 in rent, and $200,000 for salaries. They made credit sales of $2,100,000, replenished inventory for $1,000,000 and collected $1,400,000 on their credit sales. At year end, inventory on hand is estimated to have a market value of $1,100,000 and the equipment is estimated to be worth $350,000. The ending inventory using a FIFO assumption would be $800,000 and $700,000 under an average cost approach.

Required Responses:

A) What does the balance sheet and income statement look like at the end of the year if wealth is measured in increases in the cash balance? What is the return on the original investment? Is there just one answer even when wealth is defined as pure cash? How many alternative balance sheet numbers can you construct? HINT: Build a spreadsheet with at least three different Balance Sheet, Income Statement, and Return on Assets numbers, keeping in mind that for tax purposes even cash basis may still use inventory or depreciation calculations.

B) What does the balance sheet and income statement look like at the end of the year if wealth is measured on the accrual basis, that is, wealth is considered earned even before cash is collected? Even under this approach how many alternative views can you come up with? What are the issues causing the different possible interpretations? How much difference is there in your return on investment calculations? HINT: Build a spreadsheet with at least three different Balance Sheet, Income Statement, and Return on Assets numbers with different accrual basis assumptions.

C) Based on the differences in the balance sheets and income statements you constructed, list some of the key areas of controversy that remain even within the framework of a self-balancing double-entry set of accounting records.
ACTIVE LEARNING EXERCISE TWO – DOES COMPREHENSIVE INCOME MATTER?

The concept of comprehensive income as defined in the Conceptual Framework has been partially operationalized in practice. The difference in traditional net income based mostly on completed transactions and comprehensive net income is called “other comprehensive income”. For US GAAP Comprehensive income and “Other Comprehensive Income” can be shown at the bottom of the regular income statement, in a separate statement, or in the Statement of Changes in Stockholders Equity. The Accumulated Other Comprehensive Net Income is the total unrealized gains or losses from the current and prior years that have not yet been recognized in regular net income. These appear both on the face of the Balance Sheet and in the Statement of Changes in Stockholders Equity. Locate the financial statement of four companies in the same industry. Make a chart based on the regular income (NI), other comprehensive income (OCNI), comprehensive income (CNI), and accumulated other comprehensive net income (AOCNI) for the two most recent years. Though the companies may have different year ends, do your best to use roughly the same years for all companies. The free sections of Hoovers.com can help you identify companies in the same industry and lead you to condensed information. Full financial Statements should be available in most cases on Edgar.gov

<table>
<thead>
<tr>
<th>Company</th>
<th>NI</th>
<th>OCNI</th>
<th>CNI</th>
<th>AOCNI</th>
<th>OCNI as % of Regular NI</th>
<th>AOCNI as % NI</th>
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<tbody>
<tr>
<td>A – Yr 1</td>
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<td>D-Yr2</td>
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</table>

These numbers in the table other than %’s are in ___ Thousands ___ Millions ___Billions (Use X to show which)
Name of Company A ________________________________________________________________
Name of Company B ________________________________________________________________
Name of Company C ________________________________________________________________
Name of Company D ________________________________________________________________
Do you feel that the differences in regular NI and CNI were significant enough to make a difference?
______________________________________________________________________________

What appeared to be the primary types of items in OCNI ? ___________________________________
ACTIVE LEARNING EXERCISE THREE -- THE IMPACT OF DEFERRED TAXES ON FINANCIAL STATEMENTS

Locate the financial statements of four companies in at least two different industries and answer these questions for each company.

1) What dollar amount and what percentage of the total assets are tied up in deferred tax assets or liabilities?

2) How large a difference in dollars and as a percentage is there between the income tax expense figure used in the income statement and the amount actually paid in cash?

3) How is the tax amount classified – what percentage is listed as current vs. noncurrent?

4) How much difference would it make in the debt to equity ratio and retained earnings balances for each company if the deferred tax assets and liabilities were actually considered part of equity?

5) Based on your limited, nonscientific sample, does the use of comprehensive allocation seem to affect the financial statement balances in a material way?