The study of taxation is an intellectual challenge, given the complexity of the tax law and business and investments today. In college, many accounting students take only one tax course, which is usually delivered through lectures. Students who enter the tax field will have additional tax instruction throughout their careers, much of it also delivered by lectures in continuing education courses.

Unfortunately, research shows that students retain little of what is taught in lecture format. This column explores a type of active learning pedagogy that university and continuing education instructors should consider using in order to help students attain more permanent and meaningful learning. Active learning approaches can also improve critical thinking skills, which are crucial to success in the tax field.

**Lecturing and Its Drawbacks**

Research has consistently shown that the use of lecture dominates classroom education. Studies have reported that between 73% and 83% of surveyed college faculty identified the lecture method as their usual instructional strategy. These high percentages were common for large and small schools, both public and private, as well as community colleges (Gardiner, *Redesigning Higher Education: Producing Dramatic Gains in Student Learning* (George Washington University 1994)).

Lecturing is the most common teaching method used by tax educators. In a 2003 survey on the state of the tax curriculum, an AICPA-ATA (American Taxation Association) joint task force found that the lecture method was the most prevalent method used for teaching tax (Kern and Dennis-Escoffier, "Current Status of the Tax Curriculum in Accounting Programs," 35 *The Tax Adviser* 712 (November 2004)). When lectures are used in the classroom, the teacher does most of the talking as well as most of the thinking, while the students passively listen and memorize the materials (Vallino, "Design Patterns—Evolving from Passive to Active Learning," 3 *Frontiers in Educ.* 19 (November 2003)).

While lectures transmit knowledge, research in cognitive psychology suggests that they may not be the most effective way to promote learning. Passive learners do not learn well (Adler, *The Paideia Proposal: An Education Manifesto* (Macmillan 1982)). Instead, effective learning takes place when people actively participate in their own learning (Chickering and Gamson, "Seven Principles for Good Practice in Undergraduate Education," 39 *AAHE Bulletin* 3 (1987)).

**Active Learning**

A number of educational organizations, including the American Association of Higher Education, identified the use of active learning as one of the seven principles of good practice in teaching (Chickering and Gamson, "Seven Principles for Good Practice"). A similar push for active learning has occurred in the field of accounting education. The Accounting Education Change Commission's Position Statements recommend that accounting teachers should use more active learning methods in class (Accounting Education Commission, "Objectives of Education of Accountants: Position Statement Number One," http://aaahq.org/AECC/pdf/position/pos1.pdf)
Active learning requires students to do more than just listen. Instead, they must read, write, discuss, apply, analyze, synthesize, and evaluate. In other words, active learning proposes learning strategies that get students to do things and think about what they are doing (Limbach and Waugh, “Questioning the Lecture Format,” Thought & Action 21 (2005)).

Studies that assess students’ performance have shown that the use of active learning methods effectively promotes the development of students’ critical thinking skills (Burbach, Matkin, and Fritz, “Teaching Critical Thinking in an Introductory Leadership Course Utilizing Active Learning Strategies: A Confirmatory Study,” 38 College Student J. 482 (September 2004)).

The ability to think critically has been identified as a key skill for business practitioners in general, and accounting professionals in particular (Springer and Borthick, “Business Simulation to Stage Critical Thinking in Introductory Accounting: Rationale, Design, and Implementation,” 19 Issues in Acct. Educ. 277 (August 2004)). Indeed, accounting education has been disparaged for placing undue emphasis on memorization, for being hesitant to develop active learning experiences in class, and for hindering students’ acquisition of critical thinking skills by putting too much emphasis on content (Hite and Hasseldine, “A Primer on Tax Education in the United States of America,” 10 Acct. Educ. 3 (March 2001)).

The Socratic Method

One form of active learning pedagogy is the Socratic method. The Socratic method uses questions and follow-up questions to draw information out of students, rather than providing the information to them. This one-on-one engagement gradually leads students to the point where knowledge, application, synthesis, and evaluation are integrated.

The teacher may either focus the questions on one student or pose follow-up questions to students throughout the classroom. (Moore, Effective Instructional Strategies: From Theory to Practice (Sage 2005)). Using this teaching methodology, the teacher tries to expose the weakness of the students’ arguments through a process of relentless inquiry. While the pure form of the Socratic method uses questions as the sole method of teaching, the soft form of the Socratic teaching style, in which instructors switch back and forth from the Socratic method to lecture-discussion, is more prevalent (Goldberg, “Beyond the Socratic Method,” 36 Student Law. 1 (October 2007)).

The Socratic method not only engages students through active learning but has also been shown to help develop and improve students’ critical thinking skills (Clasen and Bonk, Teachers Tackle Thinking (Madison Education Extension Program 1990)).

While the Socratic method is commonly used in the law school curriculum, it has been adopted in a number of other disciplines as well, including medicine, public relations, and hospitality studies. Nonetheless, surveys suggest that the use of the Socratic method remains infrequent, with less than 5% of teachers reportedly employing this pedagogy (Adelphi University, "Institutional Report: Modeling Best Professional Practices in Teaching" (2006), education.adelphi.edu/cate/consultation/page72.php).

Similarly, tax instructors in continuing professional education, as well as in academia, reportedly rarely use the Socratic method in teaching. For example, the 2003 AICPA-ATA task force survey found that the lecture method was used for almost 80% of class time (Kern and Dennis-Escoffier, “Current Status of the Tax Curriculum”). Nonetheless, some tax professors have called for a greater integration of the Socratic method in tax pedagogy (Hite and Hasseldine, “A Primer on Tax Education”).

Use of the Socratic Method: A Case Study

While the experimentation with the Socratic method that is described below is connected with the experience in an undergraduate tax class, the suggested pedagogy can easily be adapted for use in the continuing education setting in the tax field. During the fall of 2006, the author, a tax professor at California State University, Northridge, embarked on a significant redesign of the introductory tax course that is part of the accounting undergraduate degree program. The overarching goal of the redesign was to better align how the course was taught with the recently adopted learning goals of the accounting program in the department, including the improvement of critical thinking skills.

To achieve this objective, the professor placed a heavy emphasis on active learning in the classroom by using the Socratic method. Integration of this method into the classroom environment requires the professor to play the role of catalyst for students’ engagement in learning and the improvement of their critical thinking skills. In the revised course pedagogy, a series of tax cases served as the context in which students learned basic tax theory, principles, and application. The learning experience was designed to organize the students’ knowledge of tax around real-world problems and to avoid lecture-based learning as much as possible.

To effectively use the Socratic method in class, it is necessary to ensure that students have acquired a certain level of knowledge of and familiarity with the subject matter before coming to class. This can be accomplished by asking the students to complete certain background readings and problem cases on the assigned topic. In this particular trial, some of the assigned problems were aimed at structured application of the material, while many were unstructured, fact-intensive problem cases with an open-ended question.

The unstructured problem cases were particularly well suited for the use of the Socratic method. Before class, students prepared written answers to the problem cases. Specifically, they were asked to identify relevant facts, articulate the appropriate issue in the problem, identify and articulate the governing tax principle, clearly communicate the best arguments for both sides, and draw deductions from their analysis.

Typically, class began with a general overview of the topic and then quickly moved into the problem cases. Students were called on randomly and were asked a series of questions regarding the assigned unstructured problem case. The series of questions might be as follows:
1. What are the relevant facts of the problem?
2. Why is fact X relevant?
3. What is the issue posed by the fact pattern of the assigned problem case?
4. What is the governing tax provision?
5. How does that provision work?
6. What does term Y mean?

Most of the dialogue with the student then focused on the application of the relevant facts of the problem case to the previously identified governing tax provision. The instructor should expect the students to develop logical arguments and to do so for both taxpayer and IRS positions. Using questions and follow-up questions, the teacher must challenge the students to develop logical arguments and to do so for both taxpayer and IRS positions. Using questions and follow-up questions, the teacher must challenge the students to critically examine and reevaluate their analysis and conclusions. If a student’s response is not clear or correct, additional questions must be asked to help the student explain the relevant facts and to articulate the issue(s) in an objective manner.

The exchange with a student, which can easily last 10 minutes, must be done in a courteous, professional, and nonthreatening manner. In this particular example, students received a grade on their overall performance in mastering the critical thinking skills.

The following is an example of a case problem assigned to students.

**Example:** S, a patrolling police officer, is on duty from 8:00 a.m. to 4:00 p.m. each day. Her employment contract requires her to remain on duty during her lunch hour. The police department reimburses S for lunch expenses up to a maximum of $15 per day. A state statute setting out the employment terms for police officers provides that the meals are a working condition and not a part of S’s compensation. Discuss her federal tax liability.

To assess how well the objective of improving students’ critical thinking skills was met, the students took tests before and after the course to self-assess their critical thinking skills. In addition, an evaluation rubric was used to assess their use of critical thinking skills in memos assigned at the beginning and the end of the semester. The discussion that follows describes the assessment plan and its results.

**Assessment of the Socratic Trial**

Both direct and indirect assessment tools measured students’ critical thinking skills. The assessment was conducted in two sections of the introductory tax courses taken by senior accounting students in the fall 2006 semester. There were 52 students enrolled in the two classes. To directly assess students’ critical thinking skills, a number of memos and client letters were assigned that required students to critically analyze fact scenarios. These assignments were collected, and two assignments were graded during the semester (one in the beginning and one at the end of the semester). As part of these critical thinking problems, students were given a fact scenario and asked to summarize the relevant facts, identify the tax issue, identify authoritative tax provisions, analyze the facts by identifying alternative arguments, and state the conclusion that logically flowed from the analysis.

The results are summarized in Exhibit 1. By the end of the semester, students did well in all areas of critical thinking, except identifying alternative arguments. In fact, only about one-fourth of the students effectively explored alternative arguments; instead, students tended to consider the arguments from only one perspective.

To ascertain progress in critical thinking skills during the semester, the students’ performance on the first written communication product was compared with their performance on the final written communication project. Students dramatically improved in their critical thinking performance in all three areas examined (see Exhibit 2).

To indirectly assess students’ critical thinking skills, a survey was administered at the beginning and the end of the semester asking the students to rate their critical thinking skills. As Exhibit 3 indicates, compared with the beginning of the semester, a dramatically higher number of students rated their competency in critical thinking skills as “very good” or “good”
at the end of the semester. Specifically, while only 58% of the students initially rated their analytical thinking skills as good or very good, 76% reported so at the end of the semester.

**Conclusion**

While tax practitioners must master a number of important skills, strong critical thinking skills are crucial. To effectively serve clients, tax practitioners must be able to efficiently discern between relevant and irrelevant facts, identify key issues, recognize and fully articulate applicable governing tax standards, and, most important, clearly and persuasively communicate the best arguments for both sides on the issue.

The Socratic method provides a robust tool to sharpen these critical thinking skills for students in a continuing education setting, as well as in school. By answering a series of questions and follow-up questions on a previously assigned unstructured problem, the students not only gain valuable experience in oral communication, but they also hone their critical thinking skills and deepen their lasting tax knowledge. The results from an initial assessment of the Socratic method in a class setting suggest that students not only show discernable improvement in the critical thinking skill but also self-report the same.

**EditorNotes**

Annette Nellen is a professor in the department of accounting and finance at San Jose State University in San Jose, CA. She is a former member of the AICPA Tax Division's Tax Executive Committee and a current member of the AICPA Tax Division's Individual Income Tax Technical Resource Panel. Rafi Efrat is an associate professor at California State University, Northridge, in Northridge, CA. For more information about this column, contact Prof. Nellen at anellen@sjus.edu or Prof. Efrat at rafael.efrat@csun.edu.

---

*AICPA Publications*

**NEW Edition!**

**Tax Research Techniques, Eighth Edition**  
By Robert L. Gardner, Ph.D.; Dave N. Stewart, CPA, Ph.D.; Ronald G. Worsham, Jr., CPA, Ph.D.

Find specific examples of how to effectively research both tax compliance and tax planning engagements in this new eighth edition. Employing a systematic approach to tax problems combined with guidance on the latest available tools and resources, *Tax Research Techniques* helps sharpen your skills on how to:

- Get the facts
- Ask expert questions
- Search for the right authority
- Resolve the question
- Communicate your conclusions

A case study illustrates the various working papers that go into a client file.

Order today and visit www.cpa2biz.com for more tax compliance and tax planning resources

---

*2008 Paperback*  
No. 061074  
Regular: $73.75  
AICPA Member: $59.00

www.cpa2biz.com  
888.777.7077