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A Note on Ethics Educational Interventions in an Undergraduate Auditing Course: Is There an "Enron Effect"?

Christine E. Earley and Patrick T. Kelly

ABSTRACT: In light of recent accounting scandals and the ensuing "crisis in confidence" facing the public accounting profession, there is a new challenge to accounting educators: how to effectively incorporate ethics into accounting courses, and increase the moral reasoning abilities of their students. Providing accounting students with the ability to reason effectively with respect to moral dilemmas may help to minimize future judgment errors in accounting and auditing settings.

This article describes several different educational interventions that were adopted in an undergraduate auditing course. Students' moral reasoning was assessed both at the beginning and the end of the course to determine whether their moral reasoning scores improved based on the interventions. This was done over two semesters: one occurring in 2001 ("pre-Enron"), and one occurring in 2002 ("post-Enron"). Accounting context-specific scores were collected in both semesters (using Thorne's [2000] Accounting Ethical Dilemma Instrument [AEDI]), and general moral reasoning scores (Rest's [1979] Defining Issues Test [DIT]) were also collected in the post-Enron semester. Results indicate increases in AEDI scores, which were robust over both semesters. There was no corresponding increase in DIT scores, which is consistent with previous research; however, students' DIT scores were not significantly different than AEDI scores, which is contrary to the findings of Thorne (2001). In addition, the educational interventions appear to be equally effective in both the pre-Enron and post-Enron semesters, indicating the absence of an "Enron effect."

INTRODUCTION

Since the Enron bankruptcy in late 2001, and the subsequent demise of Arthur Andersen in 2002, the public accounting profession has been faced with a "crisis in confidence" and questions regarding the profession's credibility (Kahn 2002). In addition, there has been recent press coverage regarding whether ethics education has been adequately emphasized in business schools, and in accounting programs in particular (e.g., Madison 2002; Stape 2002; Lim 2002); with the general conclusion that business and accounting curricula have not been substantially revamped to cover ethics in response to recent accounting scandals.

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Among the arguments against incorporating more ethics into the curriculum is that many professors are hard pressed to find the time to teach the technical content they normally cover, let alone incorporate ethics into their courses (Stape 2002; Lim 2002).[1] Others argue that they already incorporated an appropriate level of ethics instruction into their courses prior to the Enron scandal (Stape 2002).[2] Still others argue that ethics cannot be taught in the classroom. For example, some claim that an individual's virtue derives from his or her upbringing, and therefore college courses have very little impact on individual responses to ethical issues (Stape 2002). Others believe that ethical dilemmas must be dealt with on the job as they are encountered, rather than in a classroom setting (Petrecca 2002). Ironically, a study of accounting firms' attitudes toward ethical training found that the vast majority of firms "rely primarily on colleges to cover the ethics and ethical behavior expected in the profession" (Warth 2000, 69), rather than provide ethics training on the job.

The purpose of this article is to examine the effectiveness of ethics educational interventions in promoting student moral development in a one-semester auditing course. We hope to accomplish two objectives. The first is to provide accounting educators with ideas for incorporating ethics educational interventions into undergraduate auditing courses. The second objective is to provide additional insights into previous research on ethical interventions in a one-semester course, which have provided mixed results.

In addition to examining the question of whether particular ethics interventions are effective, we also address whether recent events occurring in public accounting have an impact on ethics education. For example, the Enron case may provide a unique learning opportunity for students, in that it may increase their awareness of ethical issues and their interest in the subject. We examine on an exploratory basis whether there is an "Enron effect," that is, whether ethics education is more effective when studied in the context of the Enron/Andersen case and other accounting scandals.

To address these questions, we performed an experiment in which students were provided with a number of instructional interventions designed to increase their cognitive moral reasoning ability. Students enrolled in a traditional undergraduate auditing course were exposed to various educational interventions designed to give them experience solving ethical dilemmas.[3] Moral reasoning scores were measured both at the beginning and the end of the course, to capture any increases in moral development resulting from exposure to the educational interventions. In addition, data were collected during two different semesters: one occurring prior to the collapse of Enron and Andersen (Spring 2001), and one occurring afterward (Fall 2002) that provided the opportunity to test for the presence of an "Enron effect."

The results indicate a significant increase in moral reasoning scores using an accounting context-specific instrument from the beginning to end of the semester for both groups, supporting the effectiveness of the educational interventions. However, there is not a corresponding increase in general moral reasoning scores (consistent with results of other studies). Moreover, there does not appear to be an "Enron effect" in that both pretest and posttest scores for the pre-Enron group versus the post-Enron group were not significantly different from one another. This suggests that the occurrence of significant current events and the inclusion of recent accounting scandals as case studies within the course, although helpful in promoting moral reasoning, did not result in a greater increase in posttest moral reasoning for the post-Enron group relative to the pre-Enron group.

[1] This complaint has merit, given that accounting programs have become largely technical in nature (Madison 2002).

[2] However, a review of accounting education dating back to 2000 (Albrect and Sack 2000) expresses concern that ethics, values, and integrity were not being incorporated into accounting curricula enough or in the correct ways.

[3] This course was "traditional" in that it was an introductory auditing course and covered topics relevant to the CPA exam, such as auditing standards, the audit risk model, substantive procedures, etc. However, the use of a case-based approach and heavy emphasis on ethical issues may represent a departure from other lecture-based accounting courses.

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The remainder of the paper is organized as follows: the following section presents the theory and hypotheses. The third section presents an overview of the methodology, including the measures used and the educational interventions applied, followed by a section presenting the results. Discussion and conclusions are provided in the final section.

THEORETICAL BACKGROUND AND HYPOTHESES

Educational Intervention in a One-Semester Course

Previous studies examining the effect of ethics education on moral reasoning development in a single-semester course have provided mixed results. For example, research has examined the cognitive moral development of both graduate students (Ponemon 1993; Welton et al. 1994; LaGrone et al. 1996) and undergraduate students (Hiltebeitel and Jones 1991; Armstrong 1993; Green and Weber 1997), and has measured reasoning in terms of general reasoning (using an instrument such as the Defining Issues Test [DIT] developed by Rest [1979]) or context-specific reasoning (using an accounting-specific instrument, generally designed by the researchers in each study).

Although studies using graduate students have found no increase in general moral reasoning (Ponemon 1993) and/or short-lived increases in context-specific moral reasoning (Welton et al. 1994; LaGrone et al. 1996), interventions in undergraduate courses appear more promising. For example, Armstrong (1993) finds an increase in general moral reasoning scores in a one-semester Professionalism and Ethics course at the undergraduate level.[4] Hiltebeitel and Jones (1991) and Green and Weber (1997) also find increases in undergraduate students' moral reasoning using self-designed context-specific instruments. Similarly, we expect to find increases in accounting context-specific moral reasoning in an undergraduate auditing course where ethical educational interventions are integrated throughout the course content.[5] The following hypothesis is proposed:

H1: Undergraduate students enrolled in an auditing course where ethics educational interventions are applied will exhibit increases in accounting context-specific moral reasoning from the beginning to the end of the course.

Although we expect *context-specific* moral reasoning to increase, previous research does not always support corresponding increases in *general* moral reasoning ability in courses where traditional accounting topics are covered. For example, Hiltebeitel and Jones (1991) collect two measures of ethical reasoning from students enrolled in cost accounting and auditing courses: (1) the ability to solve professional dilemmas, and (2) the ability to solve personal dilemmas. Although they find that students exposed to ethics training interventions were better able to solve *professional* moral dilemmas, there was no increase in their ability to solve *personal* dilemmas. This is consistent with Ponemon's (1993) speculation that ethics education in accounting may be more helpful in increasing moral reasoning for context-specific dilemmas than for general dilemmas. Given these results, there is reason to believe that although increases in context-specific moral reasoning may be possible in a one-semester course, accounting students may not exhibit similar gains in terms of general reasoning ability. Therefore, the following hypothesis is proposed:

H2: Undergraduate students enrolled in an auditing course where ethics educational interventions are applied will not exhibit an increase in general (context-free) moral reasoning from the beginning to the end of the course.

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[4] Armstrong (1993) also notes that the increases were greater for students who had additional ethics training outside of the Professionalism and Ethics course. This led her to advocate a "sandwich" approach to teaching ethics, whereby students would first take a course in general ethics, then solve context-specific ethical problems in accounting courses, and then take a capstone course in context-specific ethical reasoning.

[5] In the course described in Ponemon (1993), cases and discussions are integrated throughout the course. Also, Armstrong et al. (2003) note that integrating topics, such as the code of professional conduct, with discussion scenarios depicting each of these topics, as well as providing exemplars (both "villains" and "heroes") throughout the course is important for an effective intervention. Both of these approaches were taken in the ethics interventions in this study.

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A study by Thorne (2001) provides additional insight into differences between context-specific reasoning ability and general reasoning ability. Thorne notes that general moral reasoning scores (DIT scores) actually represent the cognitive moral *capacity* of an individual at a given point in time. She performed a study of accounting students enrolled in a cooperative education program, measuring accounting context-specific moral reasoning using a context-specific instrument (the Accounting Ethical Dilemma Instrument or AEDI [Thorne 2000]), and compared this to students' general reasoning ability (measured using the DIT). She found that context-specific measures were lower than DIT scores, from which she concluded that students enrolled in a cooperative accounting program were not reasoning at their cognitive moral capacity. Because Thorne (2001) only examines differences between AEDI and DIT scores at one point in time, an interesting extension to her work would be to examine whether AEDI scores can be improved relative to DIT scores over time. That is, although general moral reasoning scores may not increase from pretest to posttest, the context-specific moral reasoning scores may increase to the level of general scores over time. We propose that the benefit of accounting ethics education may be to reduce the gap between context-specific and general scores (and thus enable students to reason closer to their cognitive moral capacity). The following hypothesis addresses this issue:

H3: There will be a greater difference between accounting context-specific moral reasoning scores and general moral reasoning scores at the beginning of an undergraduate auditing course than at the end of the course.

The "Enron Effect"

In the aftermath of Enron and other accounting scandals, one may question whether there are lessons to be learned that can be used in education to prevent similar situations from occurring in the future. Certainly the ethical dilemmas that these current cases provide can be used as discussion materials in the classroom. In addition, for students attending a university when these events unfolded in 2002, it is possible that the media attention may have aroused their curiosity and motivated them to consider ethical issues in greater depth.[6] Whether a greater awareness of ethical issues in society and a "crisis in confidence" in their chosen profession would have a direct impact on students' moral reasoning is unknown. Therefore, we examine this issue on an exploratory basis, predicting that there may be an increase in moral reasoning scores as follows:

H4: Accounting context-specific moral reasoning (both at the beginning and at the end of an undergraduate auditing course) will be higher in a "post-Enron" semester than in a "pre-Enron" semester.

Alternatively, it is possible that despite extensive coverage of Enron/Andersen and other accounting scandals in the media, as well as exposure to these cases in other courses, students may not have a great deal of knowledge regarding the particulars of each case at the beginning of the semester. Therefore, they may benefit from learning about the cases in class and having the link between the facts and moral issues made explicit to them through reading articles, watching and discussing videos, and by analyzing an Enron-specific ethical dilemma. If studying Enron-specific material results in a greater degree of ethical awareness and motivation on the part of the students, then the following (again, exploratory) prediction follows:

H5: The increase in accounting context-specific moral reasoning from the beginning to the end of an undergraduate auditing course will be greater in a post-Enron semester than in a pre-Enron semester.

[6] For example, the demise of Andersen in particular affected so many students personally, in terms of future employment prospects and the fact that many of them knew people who worked for Andersen.

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METHOD

Participants

Participants consisted of undergraduate accounting majors enrolled in a senior-level auditing course at a northeastern state university. There were two groups of students: the "pre-Enron" group, and the "post-Enron" group. The pre-Enron group consisted of 42 students enrolled in an auditing course in Spring 2001. All participants were seniors in their seventh or eighth semesters, with a mean age of 22.5 years. All were accounting majors. Five participants failed to complete the experimental materials and demographic questionnaire so their responses were dropped from further analysis. Participants were given course credit for their participation in this study.

The post-Enron group consisted of 36 students enrolled in the same undergraduate auditing course in Fall 2002 (same instructor). Again, all were senior accounting majors in their seventh or eighth semesters, with a mean age of 21.7 years. Eleven participants were dropped from the analysis because they failed to complete either the pretest or the posttest portions of the instrument. Another four participants failed the validity checks built into the instrument, so their responses were considered invalid. That left a total of 21 participants in the post-Enron group. As with the pre-Enron group, participants were given course credit for their participation in this study.

Design and Administration of Educational Interventions

The design of the study was a pretest-treatment-posttest design.[7] For the pre-Enron group, the pretest consisted of the four-case deliberative version of the Accounting Ethical Dilemma Instrument (AEDI) as described by Thorne (2000). An example of one of the dilemmas used in the deliberative form of the AEDI is provided in Appendix A. In addition, participants answered several pages of demographic questions regarding their work experience, number of ethics courses taken as an undergraduate, political orientation, the degree to which ethics has been emphasized in various aspects of their lives (e.g., academic, religious, or family setting), and the degree to which their college professors and peers have affected their ethical development.[8] The pretest was administered during class time on the very first day of their undergraduate auditing class. In order to reduce any experimental demand associated with this study, the course instructor (one of the coauthors) did not administer either the pretest or the posttest, but rather another coauthor administered the instruments to the class.

The treatment phase of the experiment took place during the next 14 weeks of the auditing course, where ethics was emphasized as part of the course curriculum. Ethical issues were incorporated into the course in four ways. First, ethical standards that govern the public accounting profession as well as quality control standards and issues regarding accountants' legal liability were covered in the course textbook and through lectures and homework assignments. The material stressed the rules under Generally Accepted Auditing Standards (GAAS), as well as the AICPA *Code of Professional Conduct*. Students were instructed as to the substance of the rules, as well as their implications for practicing accountants. Through the textbook homework assignments, they were able to demonstrate their understanding of these rules. Second, cases were analyzed throughout the course, both in the textbook (Konrath 2002, 9 cases) as well as in a supplemental casebook (Knapp 2001, 9 cases). All of the cases required critical thinking about issues facing accountants in public practice, but four of the cases in the casebook specifically dealt with moral and/or ethical

[7] Due to practical limitations, there was no control group used in this study. However, prior studies using a context-specific instrument with control groups (e.g., Hiltebeitel and Jones 1991; Green and Weber 1997) demonstrate that students who are not given ethics interventions do not spontaneously increase their scores from the beginning to the end of the semester. Therefore, there is reason to suspect that a similar group not exposed to the ethics interventions would not experience a similar increase in moral reasoning as the participants in this study.

[8] These items were analyzed, but no significant differences were found between treatment groups.

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dilemmas facing accountants. These four cases were assigned for homework and then analyzed and discussed during class.[9] Students demonstrated their critical thinking during these class discussions and began to understand the "gray areas" often associated with ethical dilemmas. They were tested on both these cases and textbook materials.

The third intervention involved the presentation of videos in class. These included: (1) the Independence Education Project (IEP) video, "Why Independence?" and "An Auditing Case Study," (2) the Frontline video "How to Steal $500 Million" (depiction of the PharMor case), and (3) the Association of Certified Fraud Examiners video "The Corporate Con: Internal Fraud and the Auditor."[10] After each of these videos, students were given homework discussion questions, and/or in class discussions were conducted. Finally, the students were given an additional take-home ethics project; the Questronics case, adapted from Mintz (1997). Before attempting the assignment for homework, they were provided with a framework for making ethical decisions in class (specifically the ethical framework suggested by Mintz), and then were required to analyze the case in terms of this ethical framework. Mintz's (1997) framework consists of seven steps as follows:

1) Determine the Facts
2) Identify the Operational Issues
3) Identify the Accounting Issues
4) Identify the Stakeholders and Obligations
5) Make an Ethical Analysis of the Alternatives
6) Decide on a Course of Action
7) Double-Check Your Decision—Question It

Each student prepared a paper incorporating the ethical framework into his or her analysis of the Questronics case. The papers were graded as a take-home project. After the papers were turned in, a suggested solution for approaching the case was provided in class.

On the last day of class, the posttest was administered. It consisted of the AEDI that students had taken earlier in the semester. For both the pretest and the posttest, participants provided anonymous identifying information, so that their responses for the pretest could be matched with their responses for the posttest.

The post-Enron group followed the same basic procedure as the pre-Enron group, except that at both pretest and posttest they completed the three-question short-form DIT instrument in addition to the deliberative form of the AEDI. They also completed several questions measuring their knowledge of current events related to Enron, Andersen, and other accounting scandals. There were also several differences in the educational interventions administered to the post-Enron group, with more of an emphasis on Enron and Andersen-related issues. For example, although students completed the same case assignments for homework as in the pre-Enron group, they were given additional materials (articles and a timeline of events) related to Enron, WorldCom, and the "crisis of confidence" in the capital markets. Also, the IEP video, "Why Independence?" was replaced by the Nightline video "Lying, Cheating Stocks." Instead of solving the Questronics example from Mintz (1997) for the take home project, they applied Mintz's seven-step framework in solving an Enron-adapted ethical dilemma. Afterward they were provided with a handout that discussed auditors' ethical dilemmas (see Appendix B for examples of all original materials given to the post-Enron group).[11]

[9] The specific cases were: Case 4.1 "Creve Couer Pizza," Case 5.7 "Mallon Resources," Case 5.2 "PTL," and Case 5.5 "Koger Properties, Inc."

[10] The Frontline video on PharMor, is currently out of print; however, the video from the Certified Fraud Examiners can be purchased directly through their website at: http://marketplace.cfenet.com/products/products.asp and the IEP materials are available through the AAA at http://accounting.rutgers.edu/raw/aaa/facdev/teaching/iep_toolkit.htm.

[11] In addition, for a list of educational resources related to Enron and Andersen, please refer to the *Auditor's Report* (newsletter of the Auditing section of the AAA), Volume 25, No. 4 (Fall 2002) in the section entitled, "Have You Seen These Educational Resources?" Information regarding how to obtain the videos and articles described in this section of the paper is available in the table provided on page 10 of *The Auditor's Report*.

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RESULTS

To test all of the hypotheses, AEDI and DIT "p" scores were calculated for measures taken at the beginning of the course (pretest measures) and end of the course (posttest measures).[12] The overall AEDI pretest mean for both groups combined was 24.82 (sd = 12.49), and the AEDI posttest mean was 30.60 (sd = 14.47). Paired samples t-test results indicate a significant increase in means from pretest to posttest of 5.78 (t = 3.26, p [one-tailed] < 0.001) in support of H1. Further, the results are robust across both administrations of the study. P-score means and paired samples t-test results for the pre-Enron and post-Enron groups are presented in Table 1, Panel A. For the pre-Enron group, the mean p-score on the pretest was 23.57 (sd = 11.98) and the mean score on posttest was 29.05 (sd=14.34), indicating an increase from pretest to posttest of 5.48. This difference in means was statistically significant (t = 2.41, p [one-tailed] = 0.01). For the post-Enron group, the mean p-score on the pretest was 27.02 (sd = 13.36) and the mean score on posttest was 33.33 (sd = 14.65), indicating an increase from pretest to posttest of 6.31. This difference in means was also statistically significant (t = 2.19, p [one-tailed] = 0.02).

TABLE 1
T-Tests of Differences between Pretest and Posttest AEDI Means within Groups, and Differences in Pretest and Posttest AEDI Means between Groups

Condition	n	Mean	SD	Difference in Means (Increase)	t	p-value (one-tailed)
PANEL A: Comparison of Pretest Scores versus Posttest Scores within Each Group (Paired Samples t-test)						
Pretest (pre-Enron data)	37	23.57	11.98			
				5.48	2.41	0.01
Posttest (pre-Enron data)	37	29.05	14.34			
Pretest (post-Enron data)	21	27.02	13.36			
				6.31	2.19	0.02
Posttest (post-Enron data)	21	33.33	14.65			
PANEL B: Comparison of Pretest Scores and Posttest Scores between Groups (Independent Samples t-test)						
Pretest (post-Enron data)	21	27.02	13.36			
				3.46	1.01	0.16
Pretest (pre-Enron data)	37	23.57	11.98			
Posttest (post-Enron data)	21	33.33	14.65			
				4.28	1.08	0.14
Posttest (pre-Enron data)	37	29.05	14.34			

[12] These scores represent a measure of an individual's level of moral development. Refer to Rest et al. (1999) for a detailed discussion of how "p" scores are derived.

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To test H2, DIT scores collected for the post-Enron group were compared from pretest to posttest.[13] The mean DIT score at pretest was 27.01 (sd = 13.05) and the mean score at posttest was 30.34 (sd = 18.39). The mean increase from pretest to posttest of 3.33 was not significant (t = 0.94, p[one–tailed] = 0.18), as predicted by H2.

To test H3, we directly compared DIT scores to AEDI scores as in Thorne (2001). Paired samples t-tests were run comparing AEDI to DIT scores at pretest and at posttest. If H3 is supported, then we would expect to see a significant difference between AEDI and DIT scores at pretest (a replication of Thorne's [2001] results that accounting students do not reason to the level of their cognitive moral capacity), and no significant difference between AEDI and DIT scores at posttest (demonstrating the effectiveness of the education intervention in moving deliberative reasoning scores closer to cognitive moral capacity scores). The results indicate no difference in DIT and AEDI p-score means at pretest (pretest AEDI of 27.02 [sd = 13.36], versus pretest DIT of 27.01 [sd = 13.05], t = 0.09, p [one-tailed] = 0.47), contrary to Thorne's (2001) results. There was also no difference in posttest means (posttest AEDI of 33.33, [sd = 14.65], versus posttest DIT of 30.34, [sd = 18.39], t = 0.68, p [one-tailed] = 0.25). These results indicate a lack of support for H3.

To test H4, pretest and posttest scores from the pre-Enron group were compared to the pretest and posttest scores from the post-Enron group. If H4 is supported (i.e., if there is an "Enron effect" due to the greater coverage of ethics and professional issues in the media and in other classes), then we would expect to see significantly higher scores between the two semesters. Means and paired samples t-test results are presented in Table 1, Panel B. Although the means are higher in the post-Enron semester, the results indicate no statistically significant difference in pretest means (t = 1.01, p[one-tailed] = 0.16), and no difference in posttest means (t = 1.08, p[one-tailed] = 0.14), indicating no support for H4.[14]

To test H5, an ANCOVA was run on posttest scores with one independent variable, Group (pre-Enron versus post-Enron), and with pretest score as a covariate. The results, presented in Table 2, show that after partitioning out the effect of pretest score, the independent variable, Group, is not significant, indicating no support for H5.[15,16]

TABLE 2
ANCOVA on Posttest Score with Group (Pre- or Post-Enron) as the Independent Variable and Pretest Score as the Covariate

Source of Variation	Sum of Squares	df	Mean Square	F	p-value
Pretest AEDI score	2890.66	1	2890.66	18.06	> 0.001
Group	69.09	1	69.09	0.43	0.51
Residual Error	8805.40	55	160.10		

[13] Two participants of the 21 post-Enron participants provided answers to the DIT instrument that ended up failing validity checks, and therefore their DIT responses were dropped from the analysis, resulting in 19 participants for purposes of analyzing DIT scores.

[14] Analysis of questions designed to measure the post-Enron's students' knowledge of current events revealed that they were relatively unaware of the specifics of the Enron/Andersen case prior to attending the course. For example, out of nine multiple-choice questions, students were only able to identify a mean of 3.15 (sd = 2.00) correct. This lack of knowledge supports the conclusion that the occurrence of these events alone (outside of the context of the course) was not enough to increase students' moral reasoning ability without educational intervention.

[15] This analysis was also run as a one-way ANOVA with difference score from pretest to posttest as the dependent variable and Group as the independent variable. The results of this analysis similarly indicate that Group is not significant.

[16] The lack of results for H4 and H5 could be the result of low power due to the small sample size in the post-Enron group. To determine if the results would hold with a larger sample, we combined additional post-Enron AEDI data collected from undergraduate auditing students in Spring 2003 (a sample of 62 participants) with data from Fall 2002, and again found a similar significant increase in context-specific moral reasoning ability (H1) and no support for an "Enron effect" with the larger sample. Although this result supports the findings for the Fall 2002 post-Enron group above, the combined results must be interpreted with caution, since the Spring 2003 data was collected for a different study and the administration of the pretest and posttest in Spring 2003 differed from previous administrations of the experiment.

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DISCUSSION AND CONCLUSION

Overall, the results of this study demonstrate that educational interventions regarding ethical issues can be effective in improving students' context-specific moral reasoning from the beginning to the end of a semester. These findings are robust over two administrations of the interventions. Given the desire by practitioners and educators (including accrediting organizations such as the AACSB) to promote the ethical development of students, the approach taken in this study supplies a practical solution to providing such moral development. In addition, the use of a previously validated accounting context-specific instrument (Thorne's [2000] AEDI) to measure the moral reasoning ability of accounting students (as opposed to one developed by the researchers) represents an improved assessment technique for context-specific reasoning, as noted previously by accounting researchers (Douglas and Schwartz 1998).

The results demonstrated no corresponding increase in general moral reasoning ability measured by the DIT, consistent with the results of previous studies (e.g., Ponemon 1993). This may be due to the fact that the examples provided in class were context-specific and therefore students could "relate" better to context-specific versus general issues as a result of the interventions in the course. Because general moral reasoning ability is a critical component of professional judgment, this result lends support for the inclusion of general ethics training in addition to context-specific training in accounting programs, as suggested by Armstrong (1993). Moreover, the lack of results would be considered more problematic if students' context-specific deliberative reasoning scores indicated that they were not reasoning at their level of moral capacity (as found by Thorne [2001]). However, the results indicate that students' context-specific reasoning (as measured by the deliberative form of the AEDI) was already at the level of their cognitive moral capacity to begin with (as evidenced by the nonsignificant difference between pretest AEDI and DIT scores).[17]

With respect to the "Enron effect," it does not appear that the occurrence of Enron, other audit failures, and the demise of Arthur Andersen automatically led to more introspection on the part of students resulting in higher context-specific moral reasoning. Moreover, the incorporation of Enron-specific materials into the course did not result in significantly higher learning gains than the use of more general materials. Overall these results indicate that educational interventions are capable of increasing students' moral reasoning, regardless of the specific case context or other current events. Anecdotally, there is some evidence that the use of current event cases may result in the students taking a greater interest in class and being more motivated with respect to the subject matter, as evidenced by the fact that course evaluations increased slightly from the pre-Enron semester to the post-Enron semester.

There are several limitations to this study that may have implications for interpreting the results. First, the course was taught by a single instructor and measures were taken at a single university, and therefore might not generalize to other universities and/or classes. However, the topics covered in the auditing course were typical of auditing courses at other institutions (as compared to examples in Johnson et al. [2003]), and great care was taken to incorporate cases and materials that were relevant to each topic, while still capitalizing on the moral and ethical dilemmas inherent in each of the materials.

Another limitation is the small size of the samples, particularly for the post-Enron group. Because we used existing auditing classes and were subject to the existing enrollments in these classes, in addition to the fact that several participants could not be used due to absenteeism or invalid responses, we ended up with a relatively small number of participants, and this could have

[17] Although caution must be exercised when comparing data across studies, there was less variability between scores for our sample versus Thorne's (2001) sample. For example, Thorne found higher DIT scores in the deliberative reasoning condition (mean of 35.90 in her study versus 30.34 for our sample at posttest), and lower AEDI scores (mean of 24.70 in her study versus 33.33 in our study at posttest).

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affected the power of our tests. For example, there seems to be some evidence that post-Enron AEDI scores at both pretest and posttest were higher than pre-Enron scores (indicating a possible Enron effect), although these results were not statistically significant.

Finally, because we have only measured the increase in moral reasoning over one semester, we cannot determine whether the interventions incorporated in this study would have a lasting effect. Future research could measure the effectiveness of these and similar interventions over time. For example, researchers could follow up with students to see if moral reasoning changes persist throughout their accounting careers.

Future research could also examine the effectiveness of an entire program of study in accounting through a longitudinal study designed to investigate changes in context-specific moral reasoning abilities, by sampling students as they begin and then later complete their accounting undergraduate programs. In addition, given prior research using the DIT, it would be interesting to further examine potential differences in the results for the DIT and the AEDI (Thorne 2000, 2001).

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APPENDIX A
SAMPLE OF AEDI MORAL DILEMMA
ALICE AND THE ABC COMPANY

Alice is a senior auditor and a CPA for a national audit firm that provides auditing, tax, and consulting services. The firm has developed a package called the ACME ACCOUNTING SYSTEM, which is sold to the general public as well as the firm's clients. Alice is the auditor in charge of the field work on the ABC Company, Inc. audit. During the course of this audit assignment, Alice is asked to evaluate the quality control of the accounting system, which happens to be the ACME package. Alice uncovers several severe control weaknesses in the ACME system. Before rendering the management letter to ABC management, Alice is told by her boss to modify the negative comments regarding the ACME package.

Realistically, will Alice amend the management letter? (Check one) ___Will amend it ___Can't decide ___Will not amend it

Alice will consider many different factors in arriving at her decision. Many of them are of a practical and a pragmatic nature. Below is a list of some of these items. Please indicate the importance of each of the following items to Alice's response:

IMPORTANCE:

Great	Much	Some	Little	No	
					1. Whether the weaknesses in the ACME system may be easily remedied by compensating controls.
					2. Wouldn't a good employee defer to her superior's judgment?
					3. Whether Alice's job may be threatened by her refusal to revise the letter.
					4. Whether fair deliberation on the client's financial position can predict professional reputation.
					5. What is best for Alice's firm?
					6. Whether or not Alice has a duty to ensure the management letter is accurate?
					7. What is the potential value of an independent audit in lieu of society's current perspective on an enterprise's net worth?
					8. How is society best served?
					9. Whether any clients really care about internal control issues or if all they ever really want is a clean audit opinion.
					10. Would amending the management letter be consistent with what Alice thinks is right?
					11. What action would Alice's peers in the audit firm expect her to take?
					12. What factors are relevant in determinging Alice's professional responsibility?

From the list above, rank the four items of greatest importance to a practical, realistic response:

___MOST IMPORTANT ___SECOND MOST IMPORTANT ___THIRD MOST IMPORTANT___FOURTH MOST IMPORTANT

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APPENDIX B
ORIGINAL EDUCATIONAL MATERIALS DEVELOPED FOR THE POST-ENRON GROUP

EXHIBIT 1
Template for Evaluating Auditing Cases

Case: ______________________________

After reading the cases assigned from the Knapp book, please be prepared to address the following in class. Note that some cases do not mention the liability of the auditors directly. If liability is not mentioned, just assume that the auditors would be implicated if the case ever went to trial.

1. Identify three facts from the case that you found particularly interesting.

2. What is the relevance of the case to the chapter/topic we are studying (i.e., why did I select this particular case?)?

3. Pretend you are working as an auditor in public accounting. Name one lesson that you could learn from this case.

4. As we all know, hindsight is 20/20. Are there any problems identified in the case that you feel an auditor should have noticed right away?

5. What do you think is the level of exposure of the auditor if the case ever went to trial? Do you think the auditors were at fault, or were they the "victims" of an unscrupulous client?

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EXHIBIT 2
Timeline of Events in Enron/Andersen Case

2/05/01 (documented in memo by Andersen employee dated 2/6/01) At the request of David Duncan, partner in charge of the Enron engagement for Andersen, Andersen employees meet to discuss the retention of Enron as an audit client (routine meeting). Concerns were raised about Enron's aggressive accounting practices and specific partnerships, specifically, the potential conflict of interest between Andrew Fastow (CFO of Enron) and LJM (partnership that Fastow controlled). However, Andersen decides that "we have the appropriate people and processes in places to serve Enron and manage engagement risks" (*Source: WSJ 1/17/02*).

Partners at Andersen headquarters in Chicago listened in to the meeting via conference call. Steve Samek, then the head of Andersen U.S. audit practice, was one of the partners involved (*Source: Meet the Press 1/20/02*).

8/14/01 Jeffrey Skilling resigns as president of Enron, citing "personal reasons" (*Source: Business Week 1/28/02*).

8/20/01 Sherron Watkins (a vice president at Enron) calls Andersen auditor (James Hecker) explaining her concerns about Enron's aggressive accounting practices. Hecker writes three-page memo documenting call. Watkins claimed that disclosures about partnership transactions on the company's financial statements were difficult to understand and did not tell the whole story. Hecker sends an email to Andersen partners referring to Watkins' concerns as "smoking guns you can't extinguish" (*Source: WSJ 1/17/02 and USA Today 1/18/02; WSJ 5/9/02*).

8/21/01 Andersen calls "hurried" meeting to discuss concerns raised by Watkins. Andersen execs agree to consult national office and firm's legal counsel (*Source: WSJ 1/7/02*).

Mid-to-Late August 2001 Watkins writes a seven-page letter to Enron Chairman Kenneth Lay voicing her concerns about accounting practices. She states that Enron may have to restate earnings by $1.3 billion, and warns, "We will implode in a wave of accounting scandals." Lay sells Enron stock shortly after this meeting (*Source: USA Today 1/18/02; Meet the Press 1/20/02).*

September 2001 (Based on testimony of David Duncan) General discussion begins at Andersen about what Enron-related documents to discard (*Source: Associated Press 1/17/02*).

9/26/01 Question raised from an Enron employee to Kenneth Lay regarding special purpose entities (SPEs). Employee questions the accounting treatment for these entities and whether Andersen is in the dark. Lay says Andersen "blessed" the transactions (*Source: Meet the Press 1/20/02*).

Lay provides encouraging outlook for Enron to employees and encourages them to invest in Enron's stock (*Source: Orlando Sentinel 1/19/02*).

10/9/01 Mark Zajac (risk management employee for Andersen, Chicago) sends an email to the Enron audit team indicating a "heightened risk of financial statement fraud" due to a "financial statement risk identification test." Andersen hires law firm of Davis, Polk, and Wardell (*Source: WSJ 1/25/02*).

Nancy Temple (Andersen in-house counsel) begins to document concerns regarding Enron, particularly her anticipation of an SEC inquiry into Andersen, and potential consequences of such an inquiry (*Source: WSJ 6/17/02*).

10/12/01 Nancy Temple writes email to risk management partner in Houston (Michael Odom) reminding him of the firm's document retention policy. Odom forwards email to David Duncan. Duncan testifies that this memo was the beginning of the Enron document destruction effort at Andersen. He and Odom also testified that it is unusual to emphasize this policy (*Source: AP 1/17/02 and WSJ 1/18/02; 1/22/02*).

10/14/01 David Duncan, after reviewing Enron's intended press release regarding its 3rd quarter earnings restatement, calls Rick Causey, chief accounting officer for Enron, and complains that the restatement was mischaracterized in the press release as "non-recurring," when in reality the charges were part of normal earnings. Andersen recommended Enron amend the press release to change the misleading wording. Enron ignores the advice, putting Andersen in a difficult position (*Source: WSJ 6/17/02*).

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EXHIBIT 2 (continued)

10/15/01 Enron's outside legal counsel (Vinson and Elkins) writes a report to Enron that "material facts about partnerships were disclosed and reviewed by Andersen." It was also revealed that the Houston office of Andersen had consulted with the Chicago office about the accounting treatment for the transactions (*Source: WSJ 1/16/02*).

10/16/01 Enron announces 3rd quarter loss of $618 million, mischaracterizing charges as "non-recurring" (*Source: Newsweek 1/21/02*).

10/16/01 David Duncan writes a memo about the mischaracterization of Enron's 3rd quarter restatements, stating that he had warned Mr. Causey that such misleading statements have triggered SEC investigations in the past. Nancy Temple reviews the memo and sends Duncan an e-mail making recommendations that he remove the wording indicating that Andersen concluded the press release was misleading. She also recommends that he remove any references to the legal consulting group at Andersen and remove her name from the memo, so that if the case went to court, she or other members of the legal group would retain attorney-client privilege and would not have to testify (*Source: WSJ 6/17/02).*

10/22/01 SEC begins *informal* investigation into Enron's accounting (*Source: Meet the Press 1/20/02*).

10/23/01 David Duncan calls an emergency meeting to discuss deletion of emails and shredding of documents related to Enron (*Source: NBC Today Show 1/16/02*). Along with other partners, including Tom Bauer, he shapes a plan and directs employees to begin shredding documents (*Source: WSJ 5/21/02*).

10/24/01 Andrew Fastow removed as CFO of Enron and promptly resigns (*Source: Business Week 1/28/02*).

10/23/01–11/09/01 Andersen begins document destruction effort of "tons" of Enron-related documents (*Source: Meet the Press 1/20/02; WSJ 6/17/02*).

10/31/01 SEC announces *formal* investigation into Enron (*Source: Newsweek 1/21/02*).

11/08/01 Enron discloses that it had overstated earnings by $586 million since 1997 (*Source: Newsweek 1/21/02*).

11/09/01 Andersen in-house counsel, Nancy Temple, leaves voicemail for David Duncan telling him that "SEC has issued subpoenas and all documents must be preserved." Duncan testified that document destruction ceased at this point (*Source: WSJ 1/22/02; NBC Today Show 1/16/02; Meet the Press 1/20/02*).

12/02/01 Enron files for Chapter 11 bankruptcy protection. At the time it was considered the largest bankruptcy in U.S. history (*Source: WSJ 1/18/02 and Newsweek 1/21/02*).

1/10/02 Andersen releases public statement indicating that documents related to the Enron audit were destroyed (*Source: http://www.andersen.com; WSJ 1/11/02*).

1/15/02 Andersen fires partner David Duncan, claiming he "led an expedited effort to destroy documents" after he learned "that Enron had received a request for information from the SEC about its financial accounting and reporting" (*Source: WSJ 1/16/02; 1/18/02*).

1/17/02 Enron fires Andersen (*Source: USA Today 1/18/02; WSJ 1/18/02*).

1/23/02 Kenneth Lay resigns as Chairman and CEO of Enron (*Source: WSJ 1/24/02*).

1/25/02 Former Vice Chairman of Enron, J. Clifford Baxter, commits suicide (*Source: WSJ 1/28/02*).

2/02/02 A commission to investigate what went wrong at Enron issues its report. Known as the "Powers Report," this document was used as evidence in numerous congressional hearings.

3/14/02 Based upon a grand jury investigation in Houston TX, the Department of Justice issues an indictment against Andersen on obstruction of justice charges (*Source: WSJ 6/17/02*).

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EXHIBIT 2 (continued)

March 2002–June 2002 Hundreds of clients drop Andersen as their auditor. Andersen negotiates with other firms to take over parts of its audit and tax practices.

5/06/02 Andersen goes on trial in federal court in Houston, TX on obstruction of justice charges for shredding documents (*Source: WSJ 6/17/02*).

6/15/02 After a six-week trial and 72 hours of jury deliberations lasting 10 days, Andersen was convicted on one felony count of obstruction of justice. To the surprise of many, jurors do not focus on the "tons" of documents shredded, but rather the October 16th email sent by Andersen in-house counsel, Nancy Temple, to David Duncan. They felt that this email represented a direct attempt by Andersen to "impair the fact-finding facility of an official proceeding," and that Temple acted as a "corrupt persuader," coercing another employee to obstruct an SEC investigation (*Source: WSJ 6/17/02*).

As a result of the conviction, Andersen has agreed to stop auditing publicly traded companies as of 8/31/02 (at the time of the verdict this represented about 1,200 clients out of an original 2,600 clients). The sentencing is scheduled to occur in October 11, 2002. The sentence could be a maximum fine of $500,000 and 5 years probation, but the firm plans to appeal the verdict (*Source: WSJ 6/17/02*).

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EXHIBIT 3
Ethics Assignment

Introduction

For many accounting transactions, the "correct" accounting treatment can be objectively determined by following GAAP. However, A CPA's expertise becomes extremely important when transactions involve judgments or "gray areas," and the correct answer can't be objectively determined. It is in these situations that auditors must determine which accounting treatment will enable the financial statements to most fairly represent the client's operations. If the client does not agree with the CPA's recommendation, then the CPA may find himself or herself in an ethical dilemma. Consider the following scenario:

Case Scenario—Entrade

Energy Trading Inc. (Entrade) was formed in 1985 by the merger of two companies that transported and sold natural gas. Over the years the company grew by branching out into other utilities, such as electricity and oil, as well as setting up markets to buy and sell utilities. For example, Entrade would buy surplus gas supplies from various sellers, and then resell the gas to interested buyers by setting up contracts that enabled Entrade to control costs and prices. These contracts provided revenue stability to Entrade and ultimately resulted in huge profits for the company.

Entrade became so successful as an energy trader that soon the trading portion of its business began to grow faster than the utility portion. Individuals with trading expertise became highly valued at the company, and those who could figure out new and creative ways to boost profits received large bonuses and were promoted through the ranks. Those who couldn't increase profits were fired, and the cutthroat culture soon became known as "rank and yank." An example of Entrade's aggressive corporate culture was the hiring of special accountants, known as "transaction accountants." Their job was to figure out ways to boost short-term earnings by structuring transactions that would recognize the value of long-term assets up front. That is, assets put in place that were expected to result in economic benefit over say, 20 years, could be accounted for in the financial statements so that all of the economic benefit could be realized in advance. The transaction accountants became very powerful, and were well compensated for their efforts.

Another one of the most powerful people at Entrade was the CFO (Arnold Fastlake), who was hand-picked by John Smith (who was then Entrade's president) for his aggressive and "creative" financing ability. An M.B.A. graduate of a prestigious university, Fastlake was a superstar recruited from a large bank's investment group. Rather than worrying about the day-to-day accounting for Entrade (that was left up to the Chief Accounting Officer), Entrade's CFO was responsible for coming up with debt financing for the company as well as other investments and derivatives designed as hedges against trading risk. Fastlake came up with several complex, financing vehicles that helped provide needed funds for Entrade projects, but kept the related debt off of Entrade's balance sheet. Basically these vehicles, known as special-purpose entities (SPEs), were partnerships that Entrade entered into with outside investors. Some of the partnerships took advantage of a GAAP rule that allows companies to keep transactions off of the balance sheet if the outside investors provide at least 3 percent of the capital.

An outside law firm and several investment banking firms helped to structure the SPEs. In addition, the auditors for Entrade, Acme Auditors (AA), were hired by Entrade to examine the transactions to make sure they complied with GAAP. Although the deals were risky and "pushed the envelope" in terms of their interpretation of accounting standards, the auditors determined that they were technically in compliance with GAAP and gave their seal of approval to the SPEs.

Some of the SPEs were guaranteed with Entrade's stock. This meant that if the SPE found itself unable to cover its liabilities and make interest payments, Entrade would use its own stock to "prop up" the partnership, and keep it from going bankrupt. At the time the deals were structured, Entrade's stock kept going up in value, therefore this transaction posed very little risk, because it would take relatively little stock to prop up the SPEs in the event that they became insolvent.

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EXHIBIT 3 (continued)

Early in 2001, the economy began to falter and the stock market began to decline. Many stocks lost value, including Entrade. This was a problem, because if Entrade's stock kept declining in value, the SPE transactions described above would become more and more risky. At a certain point (i.e., if Entrade's stock fell below $20 per share), the amount of stock needed to fund the SPE would be so large that the company could incur disastrous losses trying to meet its obligation to the partnership. All of this risk was kept from the investors, since the SPEs were off-balance-sheet transactions that did not show up on the financial statements.

In August of 2001, John Smith (who was then the CEO of Entrade) abruptly resigned citing "personal reasons." The former CEO, Len Kay, took over the CEO position temporarily until he could name a successor. Arnold Fastlake was one of the possible successors being considered. Meanwhile, a vice-president named Shelly Winters, who was newly transferred to Fastlake's department from another department within Entrade, came across the SPEs as part of her routine work. She was struck by the riskiness of the SPEs, given that Entrade's stock was decreasing in value. She felt there was a real danger of the company going bankrupt, and she felt that the SPEs had to be "unwound" (i.e., dismantled) before that could happen. She became worried that if Fastlake were named CEO, the deals would not be unwound (or they would be covered up). She called an audit manager that she knew at AA, and explained the situation to him. In addition she wrote an anonymous letter to acting CEO Len Kay, pointing out the danger of the SPEs. Needless to say, Fastlake was furious when he found out she had gone over his head to consult the outside auditors and the CEO.

Assume you are the AA audit partner on the Entrade account, and the audit manager from your firm gave you a three-page memo documenting everything Shelly Winters had told him about the SPEs. You are concerned, particularly since Entrade represents the largest client of your local office and one of the largest clients for AA worldwide. Also, your firm has ongoing nonaudit service engagements with Entrade that generate substantial revenues equal to the audit fees. In addition, Entrade will incur significant losses from "winding down" the SPEs, which will not only wipe out all earnings for the year, but also result in a loss of half a billion dollars. What would you do with the information provided by Shelly Winters?

Address the following in the form of a written paper (3 to 5 pages):

1) **Identify the alternative courses of action available to you and evaluate them using the framework given in the Questronics example. For example, identify two alternative courses of action you might take, and determine the impact of each course of action on the various parties involved. Do NOT worry about addressing the issue in terms of various philosophical theories (e.g., Rights theory, Justice theory, Utilitarian theory, Virtue theory). Simply evaluate whether the alternative is legal, consistent with professional standards, consistent with firm guidelines, is fair, and is "right" according to your own moral beliefs.**

2) **Choose one course of action and defend your choice.**

3) **How could your firm help you in making your decision and/or in executing your decision? What controls could the firm put in place that would prevent a situation such as this from occurring in the future?**

4) **Comment on the ethical climate within Entrade. How should the client's ethical climate affect the actions taken by the external audit firm (in this case AA)?**

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EXHIBIT 4
Handout—Auditors' Ethical Dilemmas

Auditors often find themselves disagreeing with clients, and have to decide whether to stand their ground or to negotiate with the client (potentially compromising their ethics). Here are some examples of possible dilemmas, from most straightforward to most complex:

Scenario 1—Clear Violation of GAAP

Here the client has made a mistake in reporting, either unintentionally (an error) or intentionally (fraud). The auditor generally recommends an adjustment to restate the financials. The numbers are clear-cut and easy for the auditor to defend.

Scenario 2 – Difference in Opinion regarding Estimate, Application of Accounting Rule, or Other Judgment of Management

Here the auditor disagrees with management's judgment regarding certain balances (i.e., the auditor feels the allowance for doubtful accounts or sales returns and allowances is inadequate, or the values of certain assets have no support). The client's business may have become more risky, due to a decline in sales or a slowing economy, or they might be changing the way they calculate these estimates from previous years without explanation. The client could also be engaging in earnings management. Here the auditor is dealing with "gray areas" although he or she can generally come up with figures that can be defended.

Scenario 3 – "Tell me where it says I can't ..."

Client engages in stretching the limits of financial reporting, but all items are "technically GAAP." Auditor still feels that financial statements will be misleading to investors, because the risks of investing in the client aren't readily apparent from the financial statements and related footnote disclosures. Here the "true" numbers and the exact nature of the disclosures are often hard to determine—it's really a judgment call, and harder for the auditor to defend his or her position without corroboration from others or the SEC.

What are the auditor's options?

1) Do nothing. Allow financials to stay unchanged.
2) Encourage client to adjust financials, or require additional footnote disclosures.
3) Negotiate with client and arrive at "middle ground" for adjustment.
4) Render a qualified or adverse opinion if adjustment not made.
5) "Walk away" from the client.
6) Present the issue to the Audit Committee of the Board of Directors in order to pressure management to adjust financials.
7) With client's permission, run the issue by the SEC for approval before rendering opinion.

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REFERENCES

Albrecht, W. S., and R. J. Sack. 2000. *Accounting Education: Charting the Course through a Perilous Future.* Accounting Education Series, Vol. 16. Sarasota, FL: American Accounting Association.

Armstrong, M. 1993. Ethics and professionalism in accounting education. *Journal of Accounting Education* 11 (Spring): 1–14.

———, J. E. Ketz, and D. Owsen. 2003. Ethics education in accounting: Moving toward ethical motivation and ethical behavior. *Journal of Accounting Education* 21 (1): 1–16.

Douglas, P. C., and B. N. Schwartz. 1998. A longitudinal study of the effect of teaching ethics throughout the accounting curriculum. In *Research on Accounting Ethics, Volume 4,* edited by L. A. Ponemon, M. J. Epstein, and J. Gaa. Stamford, CT: JAI Press, Inc.

Green, S., and J. Weber. 1997. Influencing ethical development: Exposing students to the AICPA Code of Conduct. *Journal of Business Ethics* 16 (June): 777–790.

Hiltebeitel, K. M., and S. K. Jones. 1991. Initial evidence on the impact of integrating ethics into accounting education. *Issues in Accounting Education* 6 (Fall): 262–275.

Johnson, E., J. Baird, P. Caster, W. Dilla, C. Earley, and T. Louwers. 2003. Challenges to audit education for the 21st century: A survey of curricula, course content, and delivery methods. *Issues in Accounting Education* 18 (August): 241–263.

Kahn, J. 2002. Accounting in crisis—One plus one makes what? *Fortune* (January 7).

Knapp, M. C. 2001. *Contemporary Auditing: Issues and Cases.* Fourth edition. Mason, OH: South-Western.

Konrath, K. L. 2002. *Auditing: A Risk Analysis Approach.* 5th edition. Mason, OH: South-Western.

LaGrone, R. M., R. E. Welton, and J. R. Davis. 1996. Are the effects of accounting ethics interventions transitory or persistent? *Journal of Accounting Education* 14 (Fall): 259– 276.

Lim, Y. 2002. U. Texas-Austin: Corporate scandals bring issue into U. Texas classrooms. *University Wire* (January 20).

Madison, R. L. 2002. Is failure to teach ethics the causal factor? *Strategic Finance* (December 1).

Mintz, S. M. 1997. *Cases in Accounting Ethics and Professionalism.* Third edition. New York, NY: The McGraw-Hill Companies, Inc.

Petrecca, L. 2002. Conduct enters the curriculum: Law, business schools respond to scandals, revamp. *Crain's New York Business* (September 23).

Ponemon, L. 1993. Can ethics be taught in accounting? *Journal of Accounting Education* 11 (Fall): 1–29.

Rest, J. R. 1979. *Development in Judging Moral Issues.* Minneapolis, MN: University of Minnesota Press.

———, D. Narvaez, M. J. Bebeau, and S. J. Thoma. 1999. *Postconventional Moral Thinking: A Neo-Kohlbergian Approach.* Mahwah, NJ: Lawrence Erlbaum Associates.

Stape, A. L. 2002. Ethics: Area business schools are not rushing to add courses on ethical behavior as a result of the Enron scandal. *The Providence Journal* (April 7).

Thorne, L. 2000. The development of two measures to assess accountants' prescriptive and deliberative moral reasoning. *Behavioral Research in Accounting* 12: 139–169.

———. 2001. Refocusing ethics education in accounting: An examination of accounting students' tendency to use their cognitive moral capability. *Journal of Accounting Education* 19 (Summer): 103–117.

Warth, R. J. 2000. Ethics in the accounting profession: A study. *The CPA Journal* 70 (October): 69 – 70.

Welton, R. E., R. M. LaGrone, and J. R. Davis. 1994. Promoting the moral development of accounting graduate students: An instructional design and assessment. *Accounting Education* 3: 35–50.

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