

Singapore Management University

## Institutional Knowledge at Singapore Management University

---

Research Collection School Of Computing and Information Systems

School of Computing and Information Systems

---

8-2012

### Improving ethics education in accounting: Lessons from medicine and law

Chunhui LIU

Lee J. YAO

Nan HU

*Singapore Management University*, [nanhu@smu.edu.sg](mailto:nanhu@smu.edu.sg)

Follow this and additional works at: [https://ink.library.smu.edu.sg/sis\\_research](https://ink.library.smu.edu.sg/sis_research)



Part of the [Accounting Commons](#), [Business Law, Public Responsibility, and Ethics Commons](#), and the [Higher Education Commons](#)

---

#### Citation

LIU, Chunhui; YAO, Lee J.; and HU, Nan. Improving ethics education in accounting: Lessons from medicine and law. (2012). *Issues in Accounting Education*. 27, (3), 671-690.

Available at: [https://ink.library.smu.edu.sg/sis\\_research/8214](https://ink.library.smu.edu.sg/sis_research/8214)

This Journal Article is brought to you for free and open access by the School of Computing and Information Systems at Institutional Knowledge at Singapore Management University. It has been accepted for inclusion in Research Collection School Of Computing and Information Systems by an authorized administrator of Institutional Knowledge at Singapore Management University. For more information, please email [cherylds@smu.edu.sg](mailto:cherylds@smu.edu.sg).

# Improving Ethics Education in Accounting: Lessons from Medicine and Law

Chunhui Liu, Lee J. Yao, and Nan Hu

**ABSTRACT:** The purpose of this paper is to offer accounting educators additional perspectives for ethics education by considering teaching approaches from medicine and law. It takes the form of literature review and argument. The paper finds that ethics education in accounting shows deficiencies in terms of code-bound content, less systematic formal training, less informal hands-on training, and less usage of partnering in comparison to ethics education in medicine and law, thereby producing students with higher moral cognitive capabilities. Based on these findings, the authors provide some recommendations for improvement.

**Keywords:** ethics; accounting ethics education; ethics education methods; medical ethics education; legal ethics education; collaboration between the academics and practitioners.

**Data Availability:** Data used in this study are available from the first author upon request.

## INTRODUCTION

The persistent rise of high-profile corporate accounting scandals and restatements of previously issued financial results has generated intensified concerns for accounting ethics education (Holder-Webb and Cohen 2007; Waldmann 2000; Yang and Wu 2009; Young and Annisette 2009). Clear calls have been made for educators to increase ethics instruction to students majoring in business and accounting in particular (e.g., Low et al. 2008; Massey and Van Hise 2009; Mintz 2007). The National Association of State Boards of Accountancy (NASBA) calls for altering the coursework requirements for Certified Public Accountant (CPA) candidates to include six credit hours of coursework on ethics (Young and Annisette 2009). Recent legislation, such as the 2002 Sarbanes-Oxley legislation (U.S. Public Law 107-204), or SOX, and a reawakening interest in business ethics have prompted calls for more accounting ethics research (Robertson 2008). This paper answers the call by ethics educators and accounting professionals to research and explore alternative methods to enhance the effectiveness of the current ethics curriculum in boosting ethical awareness and ethical reasoning abilities among accounting students.

---

*Chunhui Liu is an Associate Professor at The University of Winnipeg, Lee J. Yao is a Professor at Loyola University New Orleans, and Nan Hu is an Assistant Professor at the University of Wisconsin–Eau Claire.*

---

The authors are indebted to Bill Pasewark (editor), the anonymous associate editor, and two anonymous reviewers for their innumerable guidance, enlightening comments, and helpful suggestions.

*Published Online: February 2012*

Until recently, accounting, like medicine and law, has been considered a profession more “heavily influenced by the service motive than entirely by the profit motive” (Higgins and Olson 1972, 33). Ideally, a profession exists not to compensate its members more or less abundantly, but to serve society (Mautz and Sharaf 1961). Ethics in accounting is conceived to be crucial to the functioning of capital markets (Bean and Bernardi 2007). According to Egan et al. (2004), professionalization typically starts in a professional school where students are trained with various skills, oaths, codes, and rules developed to assure dedication to public service. Therefore, the manner in which students are infused with the values of their profession has a crucial impact on their future behavior as practicing professionals and their ability to fulfill social expectations that support their profession’s status (Egan et al. 2004).

However, Fogarty (2011) argues that accounting faces the danger of deprofessionalization when the culture of public accounting fails to advance the public interest. Some researchers critically question the effectiveness of ethics education for business and accounting students to make ethical choices after graduation (Fleming et al. 2009). The interests of non-equity stakeholders are nearly disregarded in the accounting curriculum (Cohen and Holder-Webb 2006). The results of some empirical studies reveal that conventional accounting education may obstruct the ethical reasoning of accounting students and practitioners (Armstrong 1987; Ponemon 1993; Ponemon and Glazer 1990), as they do not encourage the use of “principles-based” decision making.

Currently, the main concern of conventional accounting ethics education has been to enhance the cognitive capability of students entering the profession (Jones et al. 2003). The accounting profession, guided mostly by rules and regulations, restricts its members largely to the “conventional” level of Kohlberg’s (1984) cognitive moral development model or the neo-Kohlbergian approach of maintaining norms schema (Rest et al. 1999a), thus hindering the exercise of principled ethical reasoning advocated by recent developments in the accounting standards. To overcome this problem, ethics education researchers (Haywood et al. 2004; Hildebeitel and Jones 1991; Jennings 2004; Langenderfer and Rockness 1989; Loeb 1988; Ponemon 1993; Thomas 2004) have explored innovative methods and changes to ethics education to instill better ethical values in students and professionals. This paper complements these researchers’ efforts by exploring ways that accounting ethics education can learn from ethics education for future lawyers and doctors, who tend to exhibit higher moral cognitive development scores. Accounting ethics education can benefit from a broader view of accountants’ responsibilities and accountabilities, more systematic formal training, more informal hands-on training, and more usage of partnering that are available in ethics education in law and medicine.

The next section provides examples of serious ethical issues related to the accounting profession. In the following section, the discussion focuses on whether ethics can be taught, why the ethical standards of the accounting profession are drawing more close scrutiny by the public, and how different accounting ethics education is from that of other professions such as medicine and law (Sugahara et al. 2006). The paper concludes with a discussion of how accounting ethics education can be enhanced with effective approaches of ethics education in law and medicine.

## ETHICAL ISSUES IN THE ACCOUNTING PROFESSION

In the contemporary literature, the problems that accounting professionals face daily in their working lives have been attributed to a wide variety of pressures ranging from environment to time and budget (DeZoort and Lord 1997; Lord and DeZoort 2001; Windsor and Ashkanasy 1995). Cases like Enron and WorldCom are particularly alarming. However, these companies are not alone in accounting malpractices. For instance, SK Global in South Korea overstated 2001 earnings by \$1.2 billion (Young 2003). Additionally, HIH insurance group in Australia failed with debts of \$3.2 billion after consistently understating claims liabilities (Low et al. 2008).

The U.S. Government Accountability Office (GAO 2002) compiled a sample of 919 restatement announcements between January 1, 1997, and June 30, 2002. The disclosure of accounting scandals and such restatements has contributed to the passage of new rules such as the 2002 Sarbanes-Oxley legislation (Young and Annisette 2009) and the Public Company Accounting Reform and Investor Protection Act of 2002 (Low et al. 2008). However, legislation alone does not stop such restatements from reoccurring. The Huron Consulting Group has revealed increases in the number of financial restatements: 233 in 2000, 270 in 2001, 330 in 2002, 323 in 2003, and 414 in 2004 (Flanagan et al. 2008). More recent high-profile cases include a disclosure by General Motors of losses understated by more than \$2 billion in 2005 and an understatement of a \$32 million tax obligation by H&R Block in 2005 (Flanagan et al. 2008).

According to Audit Analytics (2011), after its peak of 1,795 disclosures in 2006, the quantity of restatements and non-reliance disclosures experienced a continuous decrease for the first time after the passage of SOX for three years to 683 disclosures in 2009, with an uptick in the quantity of restatements in 2010. Despite these changes, the number of restatements is still high and calls for improvement in accounting ethics education and practice. Smyth and Davis (2004, 64) argue that “the widespread nature of the recently publicized scandals suggests that there has been a deterioration of ethical standards in the corporate workplace.” Amernic and Craig (2004, 343) argue that “one of the causes of the seemingly never-ending parade of accounting scandals and unexpected company collapses has been the inadequacy of university curricula and business education.” As such, ethics education needs to address these issues to ensure positive results in practice. The next few sections are devoted to discussion of the developments in ethics education.

## THEORETICAL BACKGROUND AND LITERATURE REVIEW

The underlying foundation for much ethics research is largely influenced by the work of Kohlberg (1969), who established a theory of moral cognitive development, and Rest, who developed a model of ethical action, culminating in a neo-Kohlbergian approach (Rest et al. 1999a). The Defining Issues Test (DIT) (Rest 1979) or DIT-2 (Rest et al. 1999b) is a popular survey instrument that provides, among numerous other metrics, a measure for the highest order of ethical reasoning (Bailey et al. 2010).

According to Kohlberg (1969), there are three levels of cognitive development: the pre-conventional, conventional, and principled (or post-conventional) stages. At the pre-conventional stage, actions are justified largely on the basis of pure self-interest. At the conventional stage, decisions are made to ensure conformity to norms and standards prevailing within a person’s upbringing, environment, or social community. At the principled or post-conventional stage, decisions are made based on notions of universal fairness, as well as what the individual deems important and in the best interest of others around him. The neo-Kohlbergian approach replaces Kohlberg’s stages with schemas: a personal interest schema; a maintaining norms schema for maintaining the established social order, such as law; and a post-conventional schema that appeals to sharable moral ideals for organizing society and full reciprocity (Rest et al. 1999a). Behavior reflective of compliance with a professional ethical code does not bring an individual to the principled or post-conventional stage or schema (Lovell 1995). Post-conventional ethical reasoning can be measured by the popular DIT-P (referring to “principled”) score developed by Rest (1979, 1986, 1999a, 1999b) through computing the proportion of “principled” items that the subject ranks as important.

“Cognitive moral capability describes the most sophisticated cognitive moral structure one can use to resolve moral dilemmas. That is, cognitive moral capability describes the degree to which an individual is potentially capable of using principled considerations in the resolution of moral dilemmas” (Thorne 2001, 106). Thorne (2001) classifies the research investigating measures to improve an individual’s cognitive development into two streams. The first school of thought holds

that cognitive development can be enhanced through educational interventions (Bernardi 1995; Cohen and Pant 1989; Jeffery 1993; Langenderfer and Rockness 1989; Ponemon 1993; Ponemon and Glazer 1990). The second branch of research is more concerned with the relationship among demographic variables, such as gender, political orientation, or character, and how they influence accounting students' ethical reasoning capacity (Brady and Wheeler 1996; Gammie and Gammie 2009; Lampe and Finn 1992; Shaub 1994; Thorne 2001; Verbeke et al. 1996).

A review of these studies indicates that moral development differs among individuals even though they may have comparable backgrounds or social environments (Ponemon 1993), thus leading us to an inevitable question that the accounting professional and academics must answer: Can ethics be taught? The following sections address whether ethics can be taught and explore how ethics education in accounting differs from that in the legal and medical professions.

### Can Ethics be Taught?

Few would dispute the argument that ethics are learned (Geary and Sims 1994). Cognitive-developmental researchers theorize that training and experience affect a person's ability to identify ethical dilemmas, or ethical awareness (Jones et al. 2003). Felton and Sims (2005) find that business ethics education can expand students' understanding of ethics. Rest argues that moral reasoning, the process of assessing ethical considerations and determining the moral course of action, can be taught (Armstrong 1987). A recent study finds that professionalism of surgical resident learners can improve with a carefully crafted curriculum (Hochberg et al. 2010). Considerable research indicates that ethics education at the university level can still influence individuals' ethical reasoning (Eynon et al. 1997; Leung and Cooper 2005; Park 1998). Researchers in other professions conclude that formal ethics educational programs in law (Kelly 1980), medicine (Klingensmith 2008; Pellegrino and McElhinney 1982), and dentistry (Bebeau 1985, 1991) help individuals to develop their cognitive moral capacities to the "highest level." Rest (1986) finds education to be the most powerful predictor of a person's ability to formulate ethical judgment. Kennedy and Malatesta (2010) reveal that ethical assignments increase students' appreciation of ethical analysis. Research based on longitudinal analysis indicates that formal post-secondary education is strongly and consistently correlated with an increase in cognitive moral reasoning (Blasi 1980; Rest 1986, 1988; Thoma 1986). A meta-analysis of 55 studies, representing 5,714 subjects and 136 samples, finds that the mean DIT P-scores increase about five percentage points for moral education interventions (Dellaportas 2006). Lau (2010) finds from a sample of 707 undergraduate, business students that ethics education improves students' ethical awareness and moral reasoning. Bok (1976) believes there is value to be gained from any ethics course that forces students to think rigorously about complex human problems, regardless of measurable effects. Lawson (2002) finds widespread acceptance for ethics education in a survey of business faculty at five institutions. A recent survey by Fawzi (2011) reveals that only 2.6 percent of 100 randomly sampled medical students think of the ethics course as optional in their curricula.

O'Leary (2009) finds teaching ethics to accounting students to be beneficial. Douglas et al. (2001) find a positive association between training and auditors' ability to identify ethical dilemmas. Shawver (2006) reveals an impact from a capstone professional responsibility course on accounting students' ability to recognize ethical implications in accounting issues. The moral reasoning of accounting students also increases with education level (Ponemon and Glazer 1990). Hildebeitel and Jones (1992) find that education indeed affects how accounting students resolve professional ethical dilemmas, although not personal ethical dilemmas. Integrating ethics into accounting and auditing courses is found to improve students' ability to formulate ethical judgment (Eynon et al. 1997; Saat et al. 2011; Sweeney 1995). Shaub (1994) shows that the completion of an ethics course in college positively influences the ethical reasoning of accounting students and that

the positive influence is retained when these students enter their profession. Many researchers (Armstrong 1993; Hildebeitel and Jones 1991; LaGrone et al. 1996; Welton et al. 1994) report that ethical interventions foster the ethical decision-making abilities among accounting students. A required and dedicated course in accounting ethics is found to increase DIT P-scores by 12.18 percentage points (Dellaportas 2006). Most schools agree that some ethics education should be included in the accounting curriculum (Shawver 2006), and 84 percent of *Financial Times* Top 50 Global Business Schools require mandatory courses in at least one of the three topics: ethics, corporate social responsibility, or sustainability (Christensen et al. 2007).

In addition to these accounting studies, there is also strong evidence from psychology literature to support education as one of the more consistent and powerful agents for the development of moral reasoning capabilities (McCabe et al. 1991; Rest and Thoma 1985). Gammie and Kirkham (2008) find that university education plays a role in highlighting the importance of both high ethical standards and acting in the public interest to the professional status of an occupation. Educational programs designed to cultivate post-conventional ethical reasoning are found to be most effective for college-educated adults in their 20s and 30s (Leming 1981; Rest 1986).

Despite some mixed results associating moral reasoning and ethical behavior, research findings on average reveal that moral reasoning explains 10 to 15 percent of the variation in ethical behavior (Thoma 1994). For example, Abdolmohammadi and Baker (2007) find that moral reasoning is inversely and significantly correlated with plagiarism practice among students in accounting courses. Krichbaum et al. (1994) find that DIT contributes significantly to predicting clinical performance of nursing students. Arbuthnot and Gordon (1986) find that adolescents whom teachers identified as aggressive demonstrate improved moral reasoning and behavior, subsequent to participating in a cognitively based moral reasoning development program, and that moral reasoning change scores are associated with behavioral change scores. As such, there is a good reason to believe that ethics can be taught and ethics education does play a role in cultivating better ethical decision-making capabilities in people (Ponemon 1993). Jackling et al. (2007) find strong support for ethics education at the pre- and post-qualifying levels of education among professional bodies. Since accounting ethics education is recognized as one prospective cure for the profession's ethical collapse (Jackling et al. 2007), research in accounting ethics education has been encouraged (Uysal 2010; Young and Annisette 2009).

### **How is Accounting Ethics Education Different from That in Other Professions?**

Ethics education in accounting, medicine, and law strives to raise ethical awareness or sensitivity to ethical dilemma and moral reasoning. Policy of the Association to Advance Collegiate Schools of Business (AACSB 2003) lists ethical understanding and reasoning abilities as key learning experiences for undergraduate business students. Ethical sensitivity or awareness of ethical difficulties is a goal often rated among the highest by ethics instructors in medicine (Gross 1999; Wichman and Foa 1996). Moreover, Myser et al. (1995) stress the importance of a systematic approach to ethical reasoning for medical students. The goals of traditional, formal ethics classes for medical schools in the U.S. and other countries have been to provide students with skills to recognize ethical dilemmas and to become more competent decision makers (Callahan and Bok 1980). Improving ethical awareness and moral reasoning of students is also an important goal of ethics education in law school (Schrug 2009). The aims of ethics education promoted in the medical and legal literature are coterminous with the general objectives of ethics education for accountants (McPhail 2001).

Despite similar goals for ethics education, many studies using the cognitive development model conclude that accounting students and practitioners generally exhibit lower moral development scores than other college-aged students and other professional groups such as medicine and law based on the DIT (Armstrong 1987, 1993; Armstrong and Mintz 1989; Bernardi and Arnold 2004; Cohen and Pant 1989; Hildebeitel and Jones 1991, 1992; Lampe and Finn 1992; Ponemon and Glazer



1990; St. Pierre et al., 1990). The average score for accounting students from studies reported in 1990–2002 is 37.51 (Abdolmohammadi and Ariail 2009). Pharmacy students are found to have DIT P-score of 42.5 (Latif 2000). Scofield et al. (2004) find that the DIT P-score for partners in law firms (45.37) is significantly higher than the DIT P-score for partners in accounting firms (39.09). Ponemon and Glazer (1990) find that students and alumni practicing public accounting who graduated from a school offering a liberal arts curriculum tend to be more highly developed in terms of DIT measures than those of the school with a more traditional accounting program.

Since DIT P-score computes the percentage of an individual's "principled" reasoning preferences (Rest et al. 1999a), individuals who rank "principled" items as the most important receive a higher DIT P-score than individuals who rank non-principled items more highly. Therefore, if an individual highly ranked items that are important but are considered to be at the conventional stage of the cognitive development model, this individual has a lower DIT P-score compared to those who rank the "principled" items more highly. Thus, it may not be a surprise that accounting students pay more attention to issues considered being at the conventional stage, since they need to comply with rules and standards (Louwers et al. 1997). Abdolmohammadi et al. (2003) find evidence that a selection-socialization effect exists in the accounting profession, resulting in hiring accountants with disproportionately higher levels of the sensing/thinking (ST) cognitive style, which is associated with relatively low levels of ethical reasoning.

However, in light of recent accounting scandals and the subsequent crisis in confidence for the public accounting profession (Okike 2004), the Financial Accounting Standards Board (FASB 2002), International Accounting Standards Board (IASB 2002), and Securities and Exchange Commission (SEC 2003) have advocated moving to a more "principles-based" financial reporting system that requires more professional judgment (Clor-Proell and Nelson 2007). For example, International Financial Reporting Standards (IFRS) have been established to be a principle-based set of standards to increase the quality of financial reporting (Liu et al. 2011). Such a regulation change calls for accounting educators to develop more principled or post-conventional moral capabilities among students.

Although some limitations have been found for using DIT scores developed with non-accounting contexts (Conroy et al. 2010; Ponemon 1990; Shaub 1994; Shawver and Sennetti 2009), Thorne (2001) finds that accounting students do not fully utilize their cognitive moral capacity even when the hypothetical moral dilemmas used in the DIT are replaced with moral dilemmas that are specific to the accounting domain. Gray et al. (1994) state that there is evidence accounting education fails to develop students' ethical maturity. A significant percentage of respondents from the Australian Society of Certified Practicing Accountants think members have little or no knowledge of ethical matters, such as public interest, integrity, and compliance (Leung and Cooper 1995).

Thorne (2001) indicates that the deficiency in accounting students' cognitive moral capacity can be seen as an opportunity for accounting educators to develop more effective ethics curriculums when training accounting students to utilize more principled considerations in their decision-making processes. However, Abdolmohammadi et al. (2009) find that the dominant cognitive make-up of accountants has not changed significantly in recent years, despite increased attention to accountants' ethics. Analyzing the ethics education in other professions that produce graduates with higher moral development scores, such as medicine and law, may provide a better understanding of why accounting students are often accused of being less ethical and highlight ways for improving ethics education for accountants.

The practice of ethics education in medicine and law may be transferrable to ethics education in accounting, not only because of their similar educational goals, but also because of their similar obligation to provide quality service (e.g., auditing and tax or management consultation by accountants, medical consultation and practice of medicine by doctors, consultation for litigation and litigation avoidance by lawyers). Therefore, malpractice, code of ethics, formal and informal

education, as well as partnership in law, medicine, and accounting are compared in the following sections.

### ***Differences in Law, Medicine, and Accounting Malpractice***

Unethical decisions or malpractice in medicine, law, and accounting may all lead to tort litigations. More people die in a given year as a result of medical errors than from motor vehicle accidents, breast cancer, or AIDS (Kohn et al. 1999). Sixty-three percent of responding urologists in a survey report being named in a medical malpractice lawsuit (Sobel et al. 2005). Direct premiums written for doctors in the U.S. were more than \$10 billion in 2008 (Hunter et al. 2009). To prevail in a medical tort lawsuit, a plaintiff must prove that the defendant has breached a duty of care owed to the plaintiff and thus caused an injury to the plaintiff (Studdert et al. 2004). Direct losses paid for medical malpractice in the U.S. have increased at least 23 times from 1975 to 2008 (Hunter et al. 2009).

Five to six percent of practicing, insured lawyers see a malpractice claim each year (Wells 2006). The elements of a claim for legal malpractice include employment of the attorney, failure by the attorney to exercise ordinary skill and care, proximate cause, and harm to the client (Kevin 2003). Lawyers' professional liability insurance business gets about \$1.5 billion to \$2 billion worth of annual premium (Wells 2006). Even ethical lawyers get sued routinely (Wells 2006).

Lawsuits against auditors are less frequent. Palmrose (2000) documents about 1,000 lawsuits against large national accounting firms during 1960–1995 in the U.S., with an average of less than 28 lawsuits per year. Yet, the impact of accounting malpractice is not limited to clients but affects a broader range of stakeholders. For example, audit claim holders consist of clients, shareholders seeking to recover lost investments, and lenders seeking to recover losses when a client business fails (Wolfe 2002). Auditors are often sued for the entire cost of a company collapse because they are seen as the only ones left with deep pockets (Croft 2010). For example, KPMG was sued for \$1 billion by the liquidators of New Century (Gittelsohn 2009). The aggregate liability exposure of big auditing firms was estimated to exceed \$30 billion in 1993, while net direct legal costs of insurance recoveries were about 13 percent of accounting and audit revenue in 1993 (Mednick and Peck 1994). The increase in legal claims against auditors leads to higher professional liability insurance costs (Stice 1991). As a result, accountants are reported to be cancelling insurance policies in favor of self-insurance through strategies such as documented work papers, increased audit steps, and stringent peer review to limit risk exposure (Thompson and Henry 1991).

The impact of accounting malpractice discussed above and the lower DIT P-scores for accounting students highlight the importance of improving accounting students' cognitive moral reasoning skills. Examining what makes the members of the other professions (law and medicine) more sophisticated in their moral reasoning capabilities may provide insight into improving ethics education for accounting students.

McPhail (2001) is among the first to identify the value of incorporating what is considered important in ethics education of other professions into ethics education for the accounting profession. Other researchers (Sisaye 2011) have also come to recognize that ethics education in accounting can benefit from methods used in other disciplines. Based on what is suggested for a better ethics education in law, engineering, and medicine, McPhail (2001) proposes that the most important objective for business ethics education is to develop empathy. Sisaye (2011) suggests using experiential teaching methods that are used in engineering and educational psychology.

This paper extends previous studies and contributes to the literature by highlighting the actual differences in ethics education practice in medicine, law, and accounting for accounting educators to consider in their efforts to improve ethics education. Ethics education in medicine, law, and accounting is compared next in terms of the role of ethics code, content delivery methods, and contributors.



### *Differences in Codes of Ethics*

A code of ethics plays a more prominent role in accounting and law than in medicine. Medical ethics is based on the Hippocratic Oath created by a Pythagorean sect of physicians about 2,500 years ago. The American Medical Association (AMA) Code of Medical Ethics was generated in 1846. The Nuremberg Code and the Declaration of Geneva were created in the 20th century. Philosophical inquiry and principles-based moral theory were developed subsequently (Egan et al. 2004). According to the code, a physician must recognize responsibility first and foremost to patients, as well as to the society, to other health professionals, and to self. The AMA Code of Medical Ethics is seldom used as a primary text, but often thought of as a set of aspirational professional guidelines (Egan et al. 2004).

The adoption date of the first code of professional ethics by the American Bar Association (ABA) was 1908 (Backof and Martin 1991). The ABA code is based on Judge George Sharswood's "Legal Ethics" (Backof and Martin 1991). In contrast to medical ethics education, legal ethics education relies more on a professional ethics code. According to the code, a lawyer has the responsibility as a representative of clients, an officer of the legal system, and a public citizen helping the legal profession to regulate itself in the public interest.

The code of professional ethics for the accounting profession was developed in 1907. There have been many updates since then (Backof and Martin 1991). According to the code, an accountant has a responsibility to serve the public interest (Wayne 1996) in addition to his/her specific responsibilities to clients or employers associated with the area of practice. The code of ethics is a part of Uniform CPA exams (Fisher et al. 2005). However, codes of ethics and codes of conduct in themselves are unlikely to prevent unethical conduct because they make little difference to the actual or intended actions of students (Fulmer and Cargile 1987). These codes are also unlikely to prevent fraudulent reporting (Brief et al. 1996; Dellaportas 2006). Teaching the code as an end in itself may invite a rigid understanding of professional responsibilities devoid of professional judgment (Armstrong et al. 2003). Educators must encourage students to recognize the broader social and political context within which their profession practices (Low et al. 2008). Since ethics education is often code bound with a focus of rule conformance in accounting (Kerr and Smith 1995), unethical judgments and fraudulent financial reporting may recur due to limited coverage of underlying ethical issues addressed by the code (Dellaportas 2006). Boyce (2008) calls for thinking beyond codes of ethics. Ethics education in accounting needs to provide students with a deeper and more contextual understanding of the codes of ethics (Dellaportas 2006; Everett 2007; Fogarty 1995).

### *Differences in Formal Education*

Formal ethics education in accounting is less systematic than formal ethics education in medicine and law. Formal ethics teaching mostly takes place during the first two years of medical school in pre-clinical settings using four popular teaching methods: discussion/debates, readings, writing exercises, and lectures (DuBois and Burkemper 2002). All U.S. law schools require their students to take a mandatory one- or two-credit course in professional responsibility during upper-class years (Cramton and Koniak 1996; Dark 2003–2004). The course focuses on the ABA Model Rules, which are tested on the Multistate Professional Responsibility Examination (MPRE) for licensure in all states (Rhode 1995).

In contrast to the fields of medicine and law, ethics training of accounting or business students is not always systematic (Loeb and Bedingfield 1972), with well-documented lack of ethics coursework (Breux et al. 2010). Willen (2004) finds that only 33 percent of accredited business schools require an ethics course. A recent study shows that only four states (Maryland, Nebraska, New York, and Texas) have added prerequisite requirements of an approved three-semester-hour college course for CPA licensure (Hurt and Thomas 2008). Most schools still do not require

accounting students to take discrete ethics courses (Frank et al. 2010). The requirement in most states for CPA candidates to pass an ethics exam for licensure has been met with a pervasive method for covering ethics in a variety of core accounting courses utilizing lectures as the dominant approach (McNair and Milam 1993). Blanthorne et al. (2007) find that less than 25 percent of accounting educator survey respondents agree or strongly agree with the statement that “ethical coverage is sufficient in the accounting department where I teach.”

Researchers like Swanson (2005) criticize AACSB’s failure to require a stand-alone ethics course. Blanthorne et al. (2007) find that only about one-third of AACSB-accredited business schools offer a stand-alone ethics course. The current accounting ethics curricula lack a systematic ethics education with at least one stand-alone ethics course. A stand-alone ethics course signals to accounting students that ethics matters (Fisher and Swanson 2005), ensures ethics coverage (Jackling et al. 2007; Low et al. 2008; Williams and Elson 2010), and improves integration across the curriculum (Loeb 1998). Researchers like Dellaportas (2006) and Shawver (2006) show that a required and dedicated course in accounting ethics can significantly increase students’ cognitive levels of ethical reasoning. A capstone course devoted to accounting ethics may be included in accounting curricula to allow more focus on accounting issues (Shawver 2006). A study shows that merely adding a general ethics course to the current pervasive method is effective in developing accounting students’ ethical reasoning (Armstrong 1993). Thus, ethics education in accounting needs to be replaced by a systematic training, with at least one formal course that fosters the highest order of ethical reasoning (Ponemon 1992).

### ***Differences in Informal Education***

In comparison to ethics education in medicine and law, ethics education in accounting is short on informal hands-on training. In medicine, formal ethics education is only a supplement to informal influences outside the traditional lecture setting in the context of patient care, achieved through practical clinical education (Colby and Sullivan 2008; Egan et al. 2004). In law, informal influences from practical experiences play an important supplementary role in legal education (Colby and Sullivan 2008). Students can participate in moot court teams, edit legal journals, or learn how their decisions affect real lives through legal clinical programs available in virtually every U.S. law school or by externships under the supervision of an attorney (Dark 2003–2004; Egan et al. 2004). However, few informal influences from practical experience exist in accounting ethics education, due to a focus on traditional classroom settings (Wilkerson 2010) and weak business school links to practice and practitioners (Parker and Guthrie 2010). However, hands-on active learning in ethics training is desirable according to AACSB (Laditka and Houck 2006). Many argue that ethics can only be learned by doing, because the question of what is right or wrong is too abstract without the challenge of actual consequences (Petrecca 2002; Sossin 2007). Researchers find a positive association between auditors’ ethical sensitivity and work experience or regular encounters with ethical dilemmas (e.g., Hill et al. 1998; Karcher 1996).

One possible way to provide accounting students with a better understanding of ethics practices in their real-life context (Argyris 2004) is to incorporate real-world stories or cases in lectures (Coyle et al. 2005). Legal ethics education uses trial practice and advocacy courses to simulate practical experiences, and involves cases for discussion and writing assignments (Egan et al. 2004). Early and Kelly (2004) find empirical evidence that case studies regarding ethical issues are effective in improving students’ context-specific moral reasoning in classroom settings. Shawver (2006) finds that case analyses enhance students’ ability to relate accounting education to moral issues. Cases are believed to offer the most effective method for ethics education among accounting educators (Blanthorne et al. 2007; Boyce et al. 2001; McNair and Milam 1993).

### *Differences in Partnership*

Ethics education in accounting involves fewer partnerships in comparison to ethics education in medicine and law. In medicine, 79 percent of the responding schools in a survey report using a formal ethics course usually taught by non-physicians (Coulehan and Williams 2000; DuBois and Burkemper 2002). Many law schools maintain relationships with the bar in their jurisdictions and invite members of the bar to participate in academic programs as speakers (Dark 2003–2004). A survey reveals that accounting faculty members rate themselves as the most appropriate source of ethics education (Blanthorne et al. 2007). Given the limited training in ethics discipline and up-to-date handling of ethics issues in the field, many researchers question the appropriateness of solely relying on accounting faculty for ethics education (e.g., Gunz and McCutcheon 1998; Oddo 1997). Breaux et al. (2010) reveal that current ethical coverage in accounting programs is not considered an important factor in recruiting decisions for entry-level accounting positions. Properly selected partners from accounting practice can make significant positive contributions to ethics education (Geary et al. 2010) valued by the accounting profession. Even though academics and practitioners may have different views on the necessary changes (Hulme and Ehrenreich 1994) and the best approaches for ethics education (Nielsen 2010), cooperation between the two groups is necessary to ensure the enhancement of the profession's ethical reasoning (Frank et al. 1990). Accounting firms' initiative led to the formation of the Accounting Education Change Commission in 1989, which united efforts from academics and practitioners to make its mark on accounting education as a catalyst for change before handing off its activities to the American Accounting Association in 1996 (AAA 2011). Cooperation between leading academics and practitioners in accounting has also led to the AAA ethics casebook (Gunz and McCutcheon 1998). Levitt (2004) indicates that accounting firms can help improve education and recruit a new generation of auditors and accountants by funding academic chairs at leading institutions. By encouraging an ethical focus, accounting firms can ensure the coverage of a full range of viewpoints on key issues and the importance of ethical standards in future job performance. Geary et al. (2010) reveal that properly selected professional partners can make significant positive contributions to accounting ethics education.

The comparison with medical and legal ethics education uncovers deficiencies in coverage of ethical issues, systematic formal training, informal hands-on training through practice, and partnering in ethics education of accounting students. These deficiencies may have partially contributed to their lower DIT P-scores.

## **DISCUSSION AND RECOMMENDATION**

As the quality of corporate disclosures has drawn increasing levels of criticisms (Holder-Webb and Cohen 2007), scholars like Fogarty (1995, 2011) believe that accounting faces the danger of deprofessionalization. Ethics education is called upon to serve as a counterbalance to the deprofessionalization by resisting trends that would squeeze out ethicality, and to improve the moral development of future accountants (Fogarty 2011). According to Kohlberg (1969) and Rest et al. (1999a), the post-conventional stage or schema is the highest level of cognitive moral development. Moral development level can be measured with tools like DIT P-scores (Rest et al. 1999b).

Many studies conclude that accounting students generally exhibit lower moral development scores than other professional faculties (e.g., Bernardi and Arnold 2004). Such findings are alarming because both moral development and moral reasoning are associated with ethical behavior (e.g., Abdolmohammadi and Baker 2007). It has become a pressing matter for accounting educators to improve accounting students' development of moral reasoning.

Researchers (e.g., Gammie and Kirkham 2008; Klingensmith 2008; O'Leary 2009) in accounting and other professions find that formal ethics educational programs in accounting, law,

and medicine can help individuals to improve their cognitive moral capacities and play an important role in highlighting the importance of high ethical standards. Although the scope of responsibility varies among professions, improving ethical awareness and advancing moral reasoning are considered important goals of ethics education in all three fields. For instance, a physician is responsible to patients, to society, to other health professionals, and to self; a lawyer is responsible to clients and the public interest; and an accountant is responsible to serve the public interest. Accounting ethics educators can benefit from transferable practices and ideas from ethics education utilized by other professions such as medicine and law (e.g., [Sisaye 2011](#)). The comparison of accounting ethics education with medical and legal ethics education highlights some major differences.

In terms of content, a code of ethics plays a more prominent role in accounting and law than in medicine. The scope of ethics education needs to cover more than the discussion of codes of ethical practice ([Boyce 2008](#)). Developing a broad view of the profession is critical in ethics education for medical, legal, accounting, and engineering professions ([McPhail 2001](#)). A clear understanding of the broader social and political context, as well as the noble purpose behind the codes, is critical for the proper development of ethical reasoning among accounting students (e.g., [Everett 2007](#)).

In terms of formal delivery method, formal ethics education in accounting is less systematic than formal ethics education in medicine and law. A stand-alone ethics course may help ethics education in accounting to become more systematic. Formal training with specific ethics courses is available to both medical and legal students, but accounting students have limited access to it. Evidence is found that a required and dedicated ethics course increases cognitive level of ethical reasoning among accounting students (e.g., [Dellaportas 2006](#)). The dedicated ethics course can be either a capstone course devoted to accounting ethics ([Shawver 2006](#)) or a general course in ethics taught elsewhere in the university ([Armstrong 1993](#)). For instance, the majority of medical schools surveyed use a formal ethics course taught by non-physicians.

In terms of informal delivery method, ethics education in accounting is short of informal hands-on training in comparison to ethics education in medicine and law. Practical experience opportunities abound in medical and legal ethics education, and expose students to the real-life pressures and consequences of the service they provide, thereby introducing the endless variables in individual cases and offering a clear understanding of the role students will play after graduation ([Egan et al. 2004](#)). Therefore, practical experience opportunities such as internship should be generated to help students absorb the values, culture, and behaviors of supervising practitioners, the experienced professionals who are role models critical to professional education. In addition, a case-based method may be used to simulate practical experiences when real-life practical experience is difficult to obtain.

In terms of major contributors of education, ethics education in accounting involves fewer partnerships in comparison to ethics education in medicine and law. Practical clinical education from supervising physicians plays a critical role in ethics education of medical students. Many law schools invite members of the bar to participate in academic programs as speakers ([Dark 2003–2004](#)). Increasing accounting students' hands-on practical training necessitates stronger partnership with practitioners in ethics education. Accounting faculty can include properly selected practitioners as speakers on ethics issues and cases, so as to cover most of the practical ethical concerns faced by accountants in their daily work.

## CONCLUSION

Accounting students show lower cognitive levels of ethical reasoning with lower DIT P-scores when compared with other professional students. In comparison to ethics education in medicine and law, ethics education in accounting shows deficiencies in terms of code-bound content, lack of

systematic formal training, a deficit in informal hands-on training, and too little usage of partnering. Recommendations are made for accounting ethics education to advance students' level of ethical reasoning, as summarized in Table 1. Future studies may contribute through the exploration of differences in actual ethical behavior among professionals, and the causes, if any, of such behavioral differences.

**TABLE 1**  
**Summary of Transferable Practices from Medicine and Law to Accounting**

	<b>Differences from Medicine and Law</b>	<b>Recommendations</b>
DIT Scores	Accounting students and practitioners generally exhibit lower moral development scores than other college-aged students and other professional groups such as medicine and law (e.g., <a href="#">Abdolmohammadi and Ariail 2009</a> ; <a href="#">Armstrong 1987</a> ; <a href="#">Bernardi and Arnold 2004</a> ; <a href="#">Gray et al. 1994</a> ; <a href="#">Latif 2000</a> ; <a href="#">Ponemon and Glazer 1990</a> ; <a href="#">Scofield et al. 2004</a> ).	Accounting ethics educators may benefit from transferable practices and ideas from ethics education in other professions such as medicine and law (e.g., <a href="#">McPhail 2001</a> ).
Differences in Content	A code of ethics plays a more important role in accounting and law than in medicine ( <a href="#">Egan et al. 2004</a> ; <a href="#">Fisher et al. 2005</a> ; <a href="#">Kerr and Smith 1995</a> ).	Ethics education in accounting needs to broaden students' view of responsibilities and ethical practice (e.g., <a href="#">Armstrong et al. 2003</a> ; <a href="#">Boyce 2008</a> ; <a href="#">Dellaportas 2006</a> ; <a href="#">Fogarty 1995</a> ; <a href="#">Low et al. 2008</a> ; <a href="#">McPhail 2001</a> ).
Differences in Formal Delivery Method	Formal ethics education in accounting is less systematic than formal ethics education in law and medicine (e.g., <a href="#">Cramton and Koniak 1996</a> ; <a href="#">Dark 2003–2004</a> ; <a href="#">DuBois and Burkemper 2002</a> ; <a href="#">Loeb and Bedingfield 1972</a> ; <a href="#">Willen 2004</a> ).	A stand-alone ethics course may establish a more systematic ethics education system for accounting students (e.g., <a href="#">Armstrong 1993</a> ; <a href="#">Dellaportas 2006</a> ; <a href="#">Ponemon 1992</a> ; <a href="#">Shawver 2006</a> ; <a href="#">Williams and Elson 2010</a> ).
Differences in Informal Delivery Method	Ethics education in accounting is short on informal hands-on training in comparison to ethics education in law and medicine (e.g., <a href="#">Colby and Sullivan 2008</a> ; <a href="#">Dark 2003–2004</a> ; <a href="#">Egan et al. 2004</a> ; <a href="#">Wilkerson 2010</a> ).	More hands-on active learning in ethics training is desirable ( <a href="#">Laditka and Houck 2006</a> ), with more practical contexts (e.g., <a href="#">Argyris 2004</a> ; <a href="#">Egan et al. 2004</a> ; <a href="#">Sossin 2007</a> ) or case studies (e.g., <a href="#">Coyne et al. 2005</a> ; <a href="#">Early and Kelly 2004</a> ; <a href="#">Egan et al. 2004</a> ; <a href="#">Klingensmith 2008</a> ; <a href="#">McNair and Milam 1993</a> ; <a href="#">Shawver 2006</a> ).
Differences in Major Contributors of Education	Ethics education in accounting involves fewer partnerships with practitioners in comparison to ethics education in medicine and law (e.g., <a href="#">Blanthorne et al. 2007</a> ; <a href="#">Coulehan and Williams 2000</a> ; <a href="#">Dark 2003–2004</a> ; <a href="#">DuBois and Burkemper 2002</a> ).	Properly selected partnership with practitioners can make significant positive contributions to accounting ethics education (e.g., <a href="#">AAA 2011</a> ; <a href="#">Frank et al. 1990</a> ; <a href="#">Geary et al. 2010</a> ; <a href="#">Gunz and McCutcheon 1998</a> ; <a href="#">Levit 2004</a> ).



## REFERENCES

- Abdolmohammadi, M. J., and D. Ariail. 2009. A test of the selection-socialization theory in moral reasoning of CPAs in industry practice. *Behavioral Research in Accounting* 21 (2): 1–12.
- Abdolmohammadi, M. J., and C. R. Baker. 2007. The relationship between moral reasoning and plagiarism in accounting courses: A replication study. *Issues in Accounting Education* 22 (1): 45–55.
- Abdolmohammadi, M. J., J. Fedorowicz, and O. Davis. 2009. Accountants' cognitive styles and ethical reasoning: A comparison across 15 years. *Journal of Accounting Education* 27 (4): 185–196.
- Abdolmohammadi, M. J., W. J. Reed, and D. P. Scarbrough. 2003. Does selection-socialization help to explain accountants' weak ethical reasoning? *Journal of Business Ethics* 42 (1): 71–81.
- American Accounting Association (AAA). 2011. *The Accounting Education Change Commission: Its History and Impact*. Available at: <http://aaahq.org/aecc/history/index.htm>
- Amerinc, J., and R. Craig. 2004. Reform of the accounting education in the post-Enron era: Moving accounting out of the shadows. *Abacus* 40 (3): 342–378.
- Arbuthnot, J., and D. A. Gordon. 1986. Behavioral and cognitive effects of a moral reasoning development intervention for high-risk behavior-disordered adolescents. *Journal of Consulting and Clinical Psychology* 54 (2): 208–216.
- Argyris, C. 2004. *Reasons and Rationalizations: The Limits to Organizational Knowledge*. New York, NY: Oxford University Press.
- Armstrong, M. 1987. Moral development and accounting education. *Journal of Accounting Education* 5: 27–43.
- Armstrong, M. 1993. Ethics and professionalism in accounting education: A sample course. *Journal of Accounting Education* 11 (1): 77–92.
- Armstrong, M., J. Ketz, and D. Owsen. 2003. Ethics education in accounting: Moving toward ethical motivation and ethical behavior. *Journal of Accounting Education* 21 (1): 1–16.
- Armstrong, M., and S. Mintz. 1989. Ethics education in accounting: Present status and policy implications. *The Government Accountants Journal* 38 (2): 70–96.
- Association to Advance Collegiate Schools of Business (AACSB). 2003. Accreditation. Available at: <http://www.aacsb.edu/accreditation>
- Audit Analytics. 2011. *Restatements—10-Year Comparison*. Available at: [http://www.alacrastore.com/storecontent/Audit\\_Analytics\\_Trend\\_Reports-Restatements\\_10\\_Year\\_Comparison-2033-21](http://www.alacrastore.com/storecontent/Audit_Analytics_Trend_Reports-Restatements_10_Year_Comparison-2033-21)
- Backof, J. F., and C. L. Martin Jr. 1991. Historical perspectives: Development of the codes of ethics in the legal, medical and accounting profession. *Journal of Business Ethics* 10: 99–110.
- Bailey, C. D., I. Scott, and S. J. Thoma. 2010. Revitalizing accounting ethics research in the neo-Kohlbergian framework: Putting the DIT into perspective. *Behavioral Research in Accounting* 22 (2): 1–26.
- Bean, D., and R. Bernardi. 2007. A proposed structure for an accounting ethics course. *Journal of Business Ethics Education* 4 (1): 1–28.
- Bebeau, M. 1985. Teaching ethics in dentistry. *Journal of Dental Education* 49 (4): 236–243.
- Bebeau, M. 1991. Can ethics be taught? *Journal of the American College of Dentistry* 30 (1): 10–15.
- Bernardi, R. 1995. Ethics research in accounting: A note on using the defining issues test. *Accounting Educators' Journal* 7 (2): 16–31.
- Bernardi, R., and D. F. Arnold Sr. 2004. Testing the “inverted U” phenomenon in moral development on recently promoted senior managers and partners. *Contemporary Accounting Research* 21 (2): 353–367.
- Blanthome, C., S. Kovar, and D. Fisher. 2007. Accounting educators' opinions about ethics in the curriculum: An extensive view. *Issues in Accounting Education* 22 (3): 355–390.
- Blasi, A. 1980. Bridging moral cognition and moral action: A critical review of the literature. *Psychological Bulletin* 88 (1): 1–45.
- Bok, D. C. 1976. Can ethics be taught? *Change* 8 (9): 26–30.
- Boyce, G. 2008. The social relevance of ethics education in a global(izing) era: From individual dilemmas to systemic crises. *Critical Perspectives on Accounting* 19: 255–290.



- Boyce, G., S. Williams, A. Kelly, and H. Yee. 2001. Fostering deep and elaborative learning and generic skill development: The strategic use of case studies in accounting education. *Accounting Education: An International Journal* 10 (1): 37–60.
- Brady, F. N., and G. E. Wheeler. 1996. An empirical study of ethical predispositions. *Journal of Business Ethics* 15: 927–940.
- Breaux, K., M. Chiasson, S. Mauldin, and T. Whitney. 2010. Ethics education in accounting curricula: Does it influence recruiters' hiring decisions of entry-level accountants? *Journal of Education for Business* 85 (1): 1–6.
- Brief, A. P., J. M. Dukerich, P. R. Brown, and J. F. Brett. 1996. What's wrong with the Treadway Commission report? *Journal of Business Ethics* 15 (2): 183–198.
- Callahan, D., and S. Bok. 1980. *The Teaching of Ethics in Higher Education*. Hastings-on-Hudson, NY: Hastings Center.
- Christensen, L. J., E. Peirce, L. P. Hartman, W. M. Hoffman, and J. Carrier. 2007. Ethics, CSR, and sustainability education in the *Financial Times* top 50 global business schools: Baseline data and future research directions. *Journal of Business Ethics* 73 (4): 347–368.
- Clor-Proell, S., and M. W. Nelson. 2007. Accounting standards, implementation guidance, and example-based reasoning. *Journal of Accounting Research* 45 (4): 699–730.
- Cohen, J., and L. Holder-Webb. 2006. Rethinking the influence of agency theory in the accounting academy. *Issues in Accounting Education* 21 (1): 17–30.
- Cohen, J., and L. Pant. 1989. Accounting educators' perceptions of ethics in the curriculum. *Issues in Accounting Education* 4: 70–81.
- Colby, A., and W. M. Sullivan. 2008. Formation of professionalism and purpose: Perspectives from the preparation for the professions program. *University of St. Thomas Law Journal* 5 (2): 404–427.
- Conroy, S. J., T. L. N. Emerson, and F. Pons. 2010. Ethical attitudes of accounting practitioners: Are rank and ethical attitudes related? *Journal of Business Ethics* 91: 183–194.
- Coulehan, J., and P. C. Williams. 2000. Professional ethics and social activism: Where have we been? Where are we going? In *Education for Professionalism: Creating a Culture of Humanism in Medical Education*, edited by D. Wear and J. Bickel. Iowa City, IA: University of Iowa Press.
- Coyne, M. P., D. W. Massey, and J. C. Thibodeau. 2005. Raising students' ethical sensitivity with a value relevance approach. *Advances in Accounting Education* 7: 171–205.
- Cramton, R. C., and S. P. Koniak. 1996. Rule, story, and commitment in the teaching of legal ethics. *William and Mary Law Review* 38: 145–198.
- Croft, J. 2010. Negligence actions against auditors rise. Available at: <http://www.ft.com/cms/s/0/77c829cc-3abd-11df-b6d5-00144feabdc0.html#axzz1srnFx85>
- Dark, O. C. 2003–2004. Transitioning from law teaching to practice and back again: Proposals for developing lawyers within the law school program. *Journal of Legal Profession* 28: 17–40.
- Dellaportas, S. 2006. Making a difference with a discrete course on accounting ethics. *Journal of Business Ethics* 65: 391–404.
- DeZoort, T., and A. Lord. 1997. A review and synthesis of pressure effects research in accounting. *Journal of Accounting Literature* 16: 28–85.
- Douglas, P. C., R. A. Davidson, and B. N. Schwartz. 2001. The effect of organizational culture and ethical orientation on accountants' ethical judgments. *Journal of Business Ethics* 34: 101–121.
- DuBois, J. M., and J. Burkemper. 2002. Ethics education in the U.S. medical schools: A study of syllabi. *Academic Medicine* 77 (5): 432–437.
- Early, C. E., and P. T. Kelly. 2004. A note on ethics educational interventions in an undergraduate auditing course: Is there an "Enron effect?" *Issues in Accounting Education* 19 (1): 53–71.
- Egan, E. A., K. Parsi, and C. Ramirez. 2004. Comparing ethics education in medicine and law: Combining the best of both worlds. *Annals of Health Law* 13: 303–325.
- Everett, J. S. 2007. Ethics education and the role of symbolic market. *Journal of Business Ethics* 76: 253–267.
- Eynon, G., N. Hill, and K. Stevens. 1997. Factors that influence the moral reasoning abilities of accountants: Implications for universities and the profession. *Journal of Business Ethics* 16: 1297–1309.

- Fawzi, M. M. 2011. Medical ethics educational improvement, is it needed or not? *Journal of Forensic and Legal Medicine* 18 (5): 204–207.
- Felton, E. L., and R. R. Sims. 2005. Teaching business ethics: Targeted outputs. *Journal of Business Ethics* 60: 377–391.
- Financial Accounting Standards Board (FASB). 2002. *Principles-Based Approach to Standard Setting*. Norwalk, CT: FASB.
- Fisher, D. G., C. Blanthorne, and S. E. Kovar. 2005. *Accounting Educators' Opinion about Ethics in the Curriculum: A Profile*. Working paper, Kansas State University and University of North Carolina at Charlotte.
- Fisher, D. G., and D. L. Swanson. 2005. *Accounting Ethics Education and Unfounded Faith in Integration Across the Curriculum: If We Don't Know Where We're Going, Any Road Will Take Us There*. Working paper, Kansas State University.
- Flanagan, D. J., L. A. Muse, and K. C. O'Shaughnessy. 2008. An overview of accounting restatement activity in the United States. *International Journal of Commerce and Management* 18 (4): 363–381.
- Fleming, D. M., R. N. Romanus, and S. M. Lightner. 2009. The effects of professional context on accounting students' moral reasoning. *Issues in Accounting Education* 24 (1): 13–30.
- Fogarty, T. J. 1995. Accountant ethics: A brief examination of neglected sociological dimensions. *Journal of Business Ethics* 14 (2): 103–115.
- Fogarty, T. J. 2011. *The Bloom Is Off the Rose: Deprofessionalization in Accounting*. Paper presented at the 2011 AAA Annual Meeting, Denver, CO.
- Frank, G., E. Ofobike, and S. Gradisher. 2010. Teaching business ethics: A quandary for accounting educators. *Journal of Education for Business* 85 (3): 132–138.
- Frank, G., M. Sarhan, and S. Fisher. 1990. Business and academic: Forging an ethics partnership. *Management Accounting* 71 (12): 47–49.
- Fulmer, W. E., and B. R. Cargile. 1987. Ethical perceptions of accounting students: Does exposure to a code of professional ethics help? *Issues in Accounting Education* 2 (2): 207–219.
- Gammie, E., and B. Gammie. 2009. The moral awareness of future accounting and business professionals: The implications of a gender divide. *Pacific Accounting Review* 21 (1): 48–73.
- Gammie, E., and L. Kirkham. 2008. Breaking the link with a university education in the creation of a chartered accountant: The ICAS story. *The British Accounting Review* 40: 356–375.
- Geary, W., E. J. Kutcher, and B. M. Porco. 2010. Partnering with practice: Staffing to achieve excellence in accounting education. *Issues in Accounting Education* 25 (2): 199–213.
- Geary, W., and R. R. Sims. 1994. Can ethics be learned? *Accounting Education: An International Journal* 3 (1): 3–18.
- Gittelsohn, J. 2009. KPMG sued for \$1 billion over New Century work. Available at: <http://mortgage.ocreger.com/2009/04/01/kpmg-sued-for-1-billion-over-new-century-work/8655>
- Government Accountability Office (GAO). 2002. *Financial Statement Restatements: Trends, Market Impacts, Regulatory Responses, and Remaining Challenges*. GAO-03-138. Washington, D.C.: Government Printing Office.
- Gray, R., J. Bebbington, and K. McPhail. 1994. Teaching ethics in accounting and the ethics of accounting teaching: Educating for immorality and a possible case for social and environmental accounting education. *Accounting Education: An International Journal* 3 (1): 51–75.
- Gross, M. L. 1999. Ethics education and physician morality. *Social Science and Medicine* 49: 329–342.
- Gunz, S., and J. McCutcheon. 1998. Are academics committed to accounting ethics education? *Journal of Business Ethics* 17: 777–790.
- Haywood, M. E., D. A. McMullen, and D. E. Wygal. 2004. Using games to enhance student understanding of professional and ethical responsibilities. *Issues in Accounting Education* 19 (1): 85–99.
- Higgins, T. G., and W. E. Olson. 1972. Restating the ethics code: A decision for the times. *Journal of Accountancy* 133 (3): 34–39.
- Hill, N., K. Stevens, and P. Clarke. 1998. Factors that affect ethical reasoning abilities of U.S. and Irish small-firm accountancy practitioners. *Research on Accounting Ethics* 4: 145–166.

- Hiltebeitel, K., and S. Jones. 1991. Initial evidence on the impact of integrating ethics into accounting education. *Issues in Accounting Education* 6: 262–275.
- Hiltebeitel, K., and S. Jones. 1992. An assessment of ethics instruction in accounting education. *Journal of Business Ethics* 11: 37–46.
- Hochberg, M. S., A. Kalet, S. Zabar, E. Kachur, C. Gillespie, and R. S. Berman. 2010. Can professionalism be taught? Encouraging evidence. *The American Journal of Surgery* 199 (1): 86–93.
- Holder-Webb, L., and J. R. Cohen. 2007. The association between disclosure, distress, and failure. *Journal of Business Ethics* 75 (3): 301–314.
- Hulme, R., and K. Ehrenreich. 1994. *Accounting Education Change: Comparison of Educators and Practitioners*. Paper presented at the AAA Western Regional Meeting, Portland, OR.
- Hunter, J. R., G. Cassell-Stiga, and J. Doroshov. 2009. True risk: Medical liability, malpractice insurance and health care. Available at: <http://www.insurance-reform.org/TrueRiskF.pdf>
- Hurt, R. K., and C. W. Thomas. 2008. Implementing a required ethics class for students in accounting: The Texas experience. *Issues in Accounting Education* 23 (1): 31–51.
- International Accounting Standards Board (IASB). 2002. *FASB and IASB Agree to Work Together Toward Convergence of Global Accounting Standards*. Available at: <http://www.fasb.org/news/nr102902.shtml>
- Jackling, B., B. Cooper, P. Leung, and S. Dellaportas. 2007. Professional accounting bodies' perceptions of ethical issues, causes of ethical failure and ethics education. *Managerial Auditing Journal* 22 (9): 928–944.
- Jeffery, C. 1993. Ethical development of accounting students, non-accounting business students, and liberal arts students. *Issues in Accounting Education* 8 (1): 86–96.
- Jennings, M. M. 2004. Incorporating ethics and professionalism into accounting education and research: A discussion of the voids and advocacy for training in seminal works in business ethics. *Issues in Accounting Education* 19 (1): 7–26.
- Jones J., D. M. Massey, and L. Thorne. 2003. Auditors' ethical reasoning: Insight from past research and implications for the future. *Journal of Accounting Literature* 22: 45–103.
- Karcher, J. 1996. Accountants' ability to discern the presence of ethical problems. *Journal of Business Ethics* 15: 1033–1050.
- Kelly, M. 1980. *Legal Ethics and Legal Education*. Hastings-on-Hudson, NY: Institute of Society, Ethics and the Life Sciences.
- Kennedy, S. S., and D. Malatesta. 2010. Safeguarding the public trust: Can administrative ethics be taught? *Journal of Public Affairs Education* 16 (2): 161–180.
- Kerr, D. S., and L. M. Smith. 1995. Importance of and approaches to incorporating ethics into the accounting classroom. *Journal of Business Ethics* 14: 987–995.
- Kevin, P. 2003. On the assignment of legal malpractice claims: A contractual solution to a contractual problem. *Texas Law Review* 82 (2): 481–514.
- Klingensmith, M. E. 2008. Teaching ethics in surgical training programs using a case-based format. *Journal of Surgical Education* 65: 126–128.
- Kohlberg, L. 1969. Stages and sequences: The cognitive developmental approach to socialization. In *Handbook of Socialization Theory and Research*, edited by D. Goslin. Chicago, IL: Rand McNally.
- Kohlberg, L. 1984. *Essays in Moral Development: The Psychology of Moral Development*. Volume 2. New York, NY: Harper & Row.
- Kohn, L. T., J. M. Corrigan, and M. S. Donaldson. 1999. *To Err Is Human; Building a Safer Health System*. Washington, D.C.: National Academy Press.
- Krichbaum, K., M. Rowan, L. Duckett, M. B. Ryden, and K. Savik. 1994. The clinical evaluation tool. A measure of the quality of clinical performance of baccalaureate nursing students. *Journal of Nursing Education* 33: 395–404.
- Laditka, S. B., and M. M. Houck. 2006. Student-developed case studies: An experimental approach for teaching ethics in management. *Journal of Business Ethics* 64: 157–167.
- 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 (3): 259–276.

- Lampe, J. C., and D. W. Finn. 1992. A model of auditors' ethical decision processes. *Auditing: A Journal of Practice & Theory* 11 (Supplement): 33–59.
- Langenderfer, H., and J. Rockness. 1989. Integrating ethics into the accounting curriculum: Issues, problems and solutions. *Issues in Accounting Education* 4: 58–69.
- Latif, D. A. 2000. Ethical cognition and selection-socialization in retail pharmacy. *Journal of Business Ethics* 25 (4): 343–357.
- Lau, C. L. L. 2010. A step forward: Ethics education matters! *Journal of Business Ethics* 92: 565–584.
- Lawson, R. A. 2002. Faculty perceptions regarding the inclusion of business ethics in the curriculum. *Research on Accounting Ethics* 8: 59–72.
- Leming, J. 1981. Curricular effectiveness in moral/value education: A review of research. *Journal of Moral Education* 10: 147–164.
- Leung, P., and B. J. Cooper. 1995. Ethical dilemmas in accountancy practice. *In the Black* 65 (4): 28–33.
- Leung, P., and B. J. Cooper. 2005. Accountants, ethical issues and the corporate governance context. *Australian Accountant Review* 15 (1): 79–88.
- Levitt, A. Jr. 2004. Reclaiming the professions heritage. *The CPA Journal* 74 (2): 22–27.
- Liu, C., L. J. Yao, N. Hu, and L. Liu. 2011. The impact of IFRS on accounting quality in a regulated market: An empirical study of China. *Journal of Accounting, Auditing and Finance* 26 (4): 659–676.
- Loeb, S. E. 1988. Teaching students accounting ethics: Some crucial issues. *Issues in Accounting Education* 3 (2): 316–329.
- Loeb, S. E. 1998. A separate course in accounting ethics: An example. *Advances in Accounting Education* 1: 235–250.
- Loeb, S. E., and J. P. Bedingfield. 1972. Teaching accounting ethics. *The Accounting Review* 47 (4): 811–813.
- Lord, A. T., and F. T. DeZoort. 2001. The impact of commitment and moral reasoning on auditors' responses to social influence pressure. *Accounting, Organization and Society* 26: 215–235.
- Louwers, T. J., L. A. Ponemon, and R. Radtke. 1997. Examining accountants' ethical behavior: A review and implications in future research. In *Behavioral Accounting Research, Foundations and Frontiers*, edited by V. Arnold and S. G. Sutton. Sarasota, FL: American Accounting Association.
- Lovell, A. 1995. Moral reasoning and moral atmosphere in the domain of accounting. *Accounting, Auditing and Accountability Journal* 8 (3): 60–80.
- Low, M., H. Davey, and K. Hooper. 2008. Accounting scandals, ethical dilemmas and educational challenges. *Critical Perspectives on Accounting* 19: 222–254.
- Massey, D. W., and J. Van Hise. 2009. Walking the walk: Integrating lessons from multiple perspectives in the development of an accounting ethics course. *Issues in Accounting Education* 24 (4): 481–510.
- Mautz, R., and H. Sharaf. 1961. *The Philosophy of Auditing*. Sarasota, FL: American Accounting Association.
- McCabe, D. L., J. M. Dukerich, and J. E. Dutton. 1991. Context, values and moral dilemmas: Comparing the choices of business and law school students. *Journal of Business Ethics* 10: 951–960.
- McNair, F., and E. E. Milam. 1993. Ethics in accounting education: What is really being done? *Ethics in Accounting Education* 12 (10): 797–809.
- McPhail, K. 2001. The other objective of ethics education: Rehumanizing the accounting profession—A study of ethics education in law, engineering, medicine and accountancy. *Journal of Business Ethics* 34: 279–298.
- Mednick, R., and J. J. Peck. 1994. Proportionality: A much-needed solution to the accountants' legal liability. *Valparaiso Law Review* 28 (3): 867–918.
- Mintz, S. 2007. Loeb's contribution to accounting ethics education and research. *Research on Professional Responsibility and Ethics in Accounting* 11: 31–46.
- Myser, C., I. H. Kerridge, and K. R. Mitchell. 1995. Teaching clinical ethics as a professional skill: Bridging the gap between knowledge about ethics and its use in clinical practice. *Journal of Medical Ethics* 21: 97–103.
- Nielsen, R. P. 2010. Practitioner-based theory building in organizational ethics. *Journal of Business Ethics* 93: 401–406.

- Oddo, A. R. 1997. A framework for teaching business ethics. *Journal of Business Ethics* 16: 293–297.
- Okike, E. 2004. Management of crisis. *Accounting, Auditing, and Accountability Journal* 17 (5): 705–730.
- O’Leary, C. 2009. An empirical analysis of the positive impact of ethics teaching on accounting students. *Accounting Education: An International Journal* 18 (4-5): 505–520.
- Palmrose, Z.-V. 2000. *Empirical Research in Auditor Litigation: Considerations and Data*. Studies in Accounting Research No. 33. Sarasota, FL: American Accounting Association.
- Park, H. J. 1998. Can business ethics be taught? A new model of business ethics education. *Journal of Business Ethics* 17: 965–977.
- Parker, L. D., and J. Guthrie. 2010. Business schools in an age of globalization. *Accounting, Auditing and Accountability Journal* 23 (1): 5–13.
- Pellegrino, E., and T. McElhinney. 1982. *Teaching Ethics in the Humanities, and Human Values in Medical Schools. A Ten-Year Overview*. Washington, D.C.: Institute on Human Values in Medicine.
- Petrecca, L. 2002. Conduct enters the curriculum: Law, business schools respond to scandals: A revamp. *Crain’s New York Business* (September 23).
- Ponemon, L. 1990. Ethical judgments in accounting: A cognitive-developmental perspective. *Critical Perspectives on Accounting* 1: 191–215.
- Ponemon, L. 1992. Ethical reasoning and selection-socialization in accounting. *Accounting, Organizations and Society* 17 (3-4): 239–258.
- Ponemon, L. 1993. Can ethics be taught in accounting? *Journal of Accounting Education* 11: 185–209.
- Ponemon, L., and A. Glazer. 1990. Accounting education and ethical development: The influence of liberal learning on students and alumni in accounting practice. *Issues in Accounting Education* 5: 21–34.
- Rest, J. R. 1979. *Development in Judging Moral Issues*. Minneapolis, MN: University of Minnesota Press.
- Rest, J. R. 1986. *Moral Development: Advances in Research and Theory*. New York, NY: Praeger Publishers.
- Rest, J. R. 1988. Why does university promote development in moral judgment? *Journal of Moral Education* 17 (3): 183–194.
- Rest, J. R., D. Narvaez, M. J. Bebeau, and S. J. Thoma. 1999a. *Postconventional Moral Thinking: A Neo-Kohlbergian Approach*. Mahwah, NJ: Lawrence Erlbaum.
- Rest, J. R., and S. J. Thoma. 1985. Relation of moral judgment development to formal education. *Developmental Psychologist* 21: 709–714.
- Rest, J. R., D. Narvaez, S. J. Thoma, and M. J. Bebeau. 1999b. DIT2: Devising and testing a revised instrument of moral judgment. *Journal of Educational Psychology* 91 (4): 644–659.
- Rhode, D. L. 1995. Into the valley of ethics: Professional responsibility and educational reform. *Law and Contemporary Problems* 58 (3/4): 139–151.
- Robertson, C. J. 2008. An analysis of 10 years of business ethics research in strategic management journal: 1996–2005. *Journal of Business Ethics* 80 (4): 745–753.
- Saat, M. M., S. Porter, and G. Woodbine. 2011. A longitudinal study of accounting students’ ethical judgment making ability. *Accounting Education: An International Journal* 11: 1–15.
- Schrag, P. G. 2009. Teaching legal ethics through role playing. *Legal Ethics* 12 (1): 35–57.
- Scofield, S. B., T. J. Phillips Jr., and C. D. Bailey. 2004. An empirical reanalysis of the selection-socialization hypothesis: A research note. *Accounting, Organizations and Society* 29 (5&6): 543–563.
- Securities and Exchange Commission (SEC). 2003. *Study Pursuant to Section 108(d) of the Sarbanes-Oxley Act of 2002 on the Adoption by the United States Financial Reporting System of a Principles-Based Accounting System*. Washington, D.C.: SEC.
- Shaub, M. K. 1994. An analysis of the association of traditional demographic variables with the moral reasoning of auditing students and auditors. *Journal of Accounting Education* 12 (1): 1–26.
- Shawver, T. J. 2006. An exploratory study assessing the effectiveness of a professional responsibility course. *Global Perspectives on Accounting Education* 3: 49–66.
- Shawver, T. J., and J. T. Sennetti. 2009. Measuring ethical sensitivity and evaluation. *Journal of Business Ethics* 88: 663–678.



- Sisaye, S. 2011. The functional-institutional and consequential-conflictual sociological approaches to accounting ethics education. *Managerial Auditing Journal* 26 (3): 263–294.
- Smyth, M. L., and J. R. Davis. 2004. Perceptions of dishonesty among two-year college students: Academic versus business situations. *Journal of Business Ethics* 51: 63–73.
- Sobel, D. L., K. R. Loughlin, and C. L. Coogan. 2005. Medical malpractice liability in clinical urology: A survey of practicing urologists. *The Journal of Urology* 175: 1847–1851.
- Sossin, L. 2007. Can ethics be taught? *The Lawyers Weekly* (April 6): 5.
- St. Pierre, E. K., E. Nelson, and A. Gabbin. 1990. A study of the ethical development of accounting majors in relation to other business and non-business disciplines. *The Accounting Educators Journal* 3: 23–35.
- Stice, J. D. 1991. Using financial and market information to identify pre-engagement factors associated with lawsuits against auditors. *The Accounting Review* 66 (3): 516–533.
- Studdert, D. M., M. M. Mello, and T. A. Brennan. 2004. Medical malpractice. *The New England Journal of Medicine* 350: 283–292.
- Sugahara, S., O. Kurihara, and G. Boland. 2006. Japanese secondary school teachers' perceptions of the accounting profession. *Accounting Education: An International Journal* 15 (4): 405–418.
- Swanson, D. L. 2005. Business ethics education at bay. Addressing a crisis of legitimacy. *Issues in Accounting Education* 20 (3): 247–254.
- Sweeney, J. 1995. The ethical expertise of accounts: An exploratory analysis. *Research in Accounting Ethics* 1: 213–234.
- Thoma, S. J. 1986. Estimating gender differences in the comprehension and preference of moral issues. *Developmental Review* 6: 165–180.
- Thoma, S. J. 1994. Moral judgments and moral action. In *Moral Development in the Professions*, edited by J. R. Rest and D. Narvaez, 199–211. Hillsdale, NJ: Lawrence Erlbaum.
- Thomas, C. W. 2004. An inventory of support materials for teaching ethics in the post-Enron era. *Issues in Accounting Education* 19 (1): 27–52.
- Thompson, J. H., and L. J. Henry. 1991. Professional liability insurance: Go bare or not? *Journal of Accountancy* 172 (1): 111–116.
- Thorne, L. 2001. Refocusing ethics education in accounting: An examination of accounting students' tendency to use their cognitive moral capability. *Journal of Accounting Education* 19: 103–117.
- Uysal, Ö. Ö. 2010. Business ethics research with an accounting focus: A bibliometric analysis from 1988 to 2007. *Journal of Business Ethics* 93: 137–160.
- Verbeke, W., C. Ouwerkerk, and E. Peelen. 1996. Exploring the contextual and individual factors on ethical decision making of salespeople. *Journal of Business Ethics* 15: 1175–1187.
- Waldmann, E. 2000. Teaching ethics in accounting: A discussion of cross-cultural factors with a focus on Confucian and Western philosophy. *Accounting Education: An International Journal* 9 (1): 23–35.
- Wayne, B. 1996. AICPA not negligent in promulgating professional standards. *Journal of Accountancy* 182 (5): 94–95.
- Wells, B. 2006. Managing the risk of lawsuits against lawyers. Available at: [http://www.insurancejournal.com/magazines/mag\\_features/2006/01/23/65374.htm](http://www.insurancejournal.com/magazines/mag_features/2006/01/23/65374.htm)
- 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: An International Journal* 3: 35–50.
- Wichman, A., and R. Foa. 1996. Ethics education in neurology residency programs: Results of a survey. *Neurology* 46 (5): 1481–1483.
- Wilkerson Jr., J. E. 2010. Accounting educators as the accounting profession's trustees: Lessons from a study of peer professions. *Issues in Accounting Education* 25 (1): 1–13.
- Willen, L. 2004. Kellogg denies guilt as B-schools evade alumni lapses. *Bloomberg Press Wire* (March 8).
- Williams, J., and R. J. Elson. 2010. Improving ethical education in the accounting program: A conceptual course. *Academy of Educational Leadership Journal* 14 (4): 107–116.
- Windsor, C. A., and N. M. Ashkanasy. 1995. The effect of client management bargaining power, moral reasoning development, and belief in a just world on auditor independence. *Accounting, Organizations, and Society* 20: 701–720.



- Wolfe, J. 2002. Accounting malpractice in Ohio: What you need to know. *Catalyst* (September/October): 12–14.
- Yang, H. L., and W. P. Wu. 2009. The effect of moral intensity on ethical decision making in accounting. *Journal of Moral Education* 38 (3): 335–351.
- Young, J. J., and M. Annisette. 2009. Cultivating imagination: Ethics, education and literature. *Critical Perspectives on Accounting* 20 (1): 93–109.
- Young, S. 2003. *Moral Capitalism: Reconciling Private Interest with the Public Good*. San Francisco, CA: Berrett-Koehler.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.