

Teaching Ethics to High School Students: Virtue Meets Economics

M. Scott Niederjohn, Kim Nygard, and William C. Wood

When highly visible lapses in ethics occur, education gets some of the blame. Principals in the U.S. subprime mortgage crisis and the Enron scandal had been educated at Harvard and other elite business schools, where professional and moral ideals had arguably been replaced by a focus on profits at the expense of ethics.¹

A long-standing tradition in ethics education, however, holds that by college or graduate school it is “too late” to teach ethics.² A natural question arises: Can we teach ethics earlier, possibly at the high school level? This article reports on a curricular effort titled *Teaching the Ethical Foundations of Economics* by the National Council on Economic Education (NCEE) with just that goal. After several years of development and assessment, materials for teaching ethics in social studies classrooms have been prepared and tested. The early results suggest that in fact students can successfully be taught about ethical issues in economics and other social studies classes.

The Templeton Project

NCEE’s ethics project began with a grant from the John Templeton Foundation naming Jonathan B. Wight of the University of Richmond as principal investigator. “Infusing ethical and moral dimensions into economics cannot wait until students attend college,” the original 2004 grant proposal stated.

A design and writing team met in

2005, consisting of a philosopher, a business ethicist, two economists, two university-level economic educators and a high school economic educator. The team developed a series of 10 lessons with visuals and activities. Lessons were class-tested in 2006 and revisions followed. The materials debuted at train-the-trainers institutes in 2007 and were published in 2007. An assessment of student learning was completed in 2008.

The Lessons

The lessons resulting from the NCEE project are suitable for social studies classrooms in general, with only one of them (Lesson 7 on organ transplantation) requiring knowledge of the basic supply and demand model. The other lessons would be suitable for a range of social studies classes including government, psychology, and sociology.

The first lesson in the series is entitled “Does Science Need Ethics?” In this lesson, students examine how preconceptions affect observation and how ethical judgments affect economic analysis. In the second lesson, “What Is the Difference between Self-Interest and Greed?”, stu-

dents make, accept, and reject ultimatum offers with candy pieces to distinguish healthy self-interest from greed.

The opening lessons are followed by three lessons specifically concerning the operation of markets. In the first of these, “Do Markets Need Ethical Standards?”, students play the roles of doctors and patients to see how enlightened self-interest, duty, and virtue improve economic efficiency. Paired lessons then show the usefulness of markets in rewarding virtuous character traits and the moral limitations of markets for solving resource allocation problems.

Two applied lessons then lead students through controversial social topics: “What Should We Do about Sweatshops?” and “Should We Allow a Market for Transplant Organs?” By the eighth lesson in the series, students are learning about efficiency as an ethical concept through role-playing involving the critical shortage of a life-saving serum. In the ninth lesson (reprinted in this issue), students debate the role of business in directly pursuing policies aimed at promoting social justice, the environment, and other causes.

The final lesson, “What is Economic Justice?”, has students play a Veil of Ignorance game to reveal how altering people’s self-interest transforms their vision of economic justice and their

Table 1. Mean Scores out of 25 Questions on Assessment Test

Group	Mean Score Before <i>Ethical Foundations</i>	Mean Score After <i>Ethical Foundations</i>	Change in Predicted Direction?	t-statistic on Difference of Means	p-Value (2-Tailed Test)
Control Group	10.38 (3.69) n=86	9.69 (4.27) n=86	Yes (no statistically significant improvement)	-1.75	p=0.084
Group that Used <i>Ethical Foundations</i>	10.24 (3.85) n=789	11.68 (4.52) n=789	Yes	9.820	p=0.000

positions on government policy issues.

Assessment of Learning

The 2008 learning assessment of the lessons employed a pre- and post-test design with a treatment group (those who used *Ethical Foundations*) and a control group (other students who did not participate). In total, 17 teachers from different schools participated.

Teachers were chosen for the project via a random process. Initially, 390 teachers from across the country that had attended an NCEE-sponsored teacher workshop on the *Ethical Foundations* materials were sent an email describing the assessment project; 53 teachers volunteered to participate. Then a random number process was used to identify 17 teachers who completed the project.

Each teacher received further training in the winter of 2008 in the use of the materials and a briefing on the test instruments and processes via email and phone conversations. The teachers returned to their classrooms in the spring of 2008 and administered pre-tests before using the lessons. The participating teachers also completed and returned questionnaires about their background and their teaching of *Ethical Foundations*. Finally, after completing the lessons with their students, participating teachers mailed back the post-tests and related materials.

By the end of the assessment project, there were 875 complete and useable matched-tests received. The final sample included 789 students exposed to the *Ethical Foundations* materials and 86 students in control groups.

The ethics test instrument was devel-

oped from assessment questions in the lessons, adapted questions from earlier NCEE assessments, suggestions from the original curriculum authors' conference, and staff work at two centers for economic education. Questions in the test questions covered a range of subjects, including, for example, the differences between normative and positive economic statements, the distinction between rational self-interest and greed, frequently cited causes of sweatshop conditions, and the differing opinions of the chairman of Whole Foods and economist Milton Friedman on the social obligations of businesses (see the lesson plan presenting these opinions on pp. 84–91 of this issue). Included at the end of the knowledge test was a set of four questions to gather information on grade level, gender, background in economics and educational plans.

Test Results on Knowledge of Ethics and Economics

Table 1 shows the results of the 25-item test on knowledge of ethics and economics, including the results of statistical t-tests designed to show whether the change in knowledge went beyond what could be attributed to chance. For the overall test, students who were exposed to the *Ethical Foundations* curriculum saw a statistically significant increase in knowledge of ethics and economics. In contrast, the control group (as expected) showed no statistically significant increase in knowledge. (In fact, this group showed a marginally significant drop in knowledge.)

The 789 students who took the pre-test scored an average of 10.24 out

of 25 questions correct, or about 41 percent. After exposure to the *Ethical Foundations* curriculum, the students scored an average of 11.68 out of 25 questions correct, or about 47 percent. This amounted to an improvement of just over six percentage points. This increase was well beyond what could be attributed to chance. Statistically, a change in knowledge this large could be expected to occur by chance less than one ten-thousandth of the time. (See standard deviations in parentheses and p-values in Table 1.)

Collection of data on student and teacher characteristics permitted some further inferences.³ Participating teachers had been asked to teach as many of the ten lessons as possible; the maximum taught, however, was eight while the minimum taught was four. As expected, the results indicated positive and statistically significant effects among students who had received greater hours of instruction and a greater number of lessons from the *Ethical Foundations* materials. Each additional lesson of instruction was associated with a gain of 0.774 correctly answered questions, holding other variables constant.

There were also, as expected, large and statistically significant differentials for students with higher educational aspirations. There was no statistically significant gender difference; nor were there statistically significant effects of students having taken more economics course work. Interestingly, students in higher grades did worse on the tests, holding other variables constant, perhaps suggesting this curriculum is most effective with students in the earlier high school grades.

Test Results on Attitudes

In addition to questions measuring learning, the students answered a survey about attitudes toward ethical issues. One basic result stood out: that students' basic ethical attitudes were unchanged after exposure to the curriculum. This suggests that though we can teach students how to identify and discuss ethical issues as part of the social studies curriculum in general and the economics curriculum in particular, the personal values that drive their attitudes to ethical issues may be more resistant to change. After extensive development, *Teaching the Ethical Foundations of Economics* provides a positive answer to the question: Can we teach high school students *about* ethical issues? Beyond that, results are mixed. Change in behavior is still another step removed, but behavioral change is clearly

an objective when ethical scandals lead to calls for more teaching of ethics.

It is important not to claim too much for a new set of teaching materials. A modest, and empirically supported, conclusion about *Teaching the Ethical Foundations of Economics* is that it does increase ethical awareness. We believe, based on this, that the new curriculum clearly does no harm, and may do some good in promoting ethical behavior. 📖

Notes

1. Rakesh Khurana, *From Higher Aims to Hired Hands: The Social Transformation of American Business Schools and the Unfulfilled Promise of Management as a Profession* (Princeton, N.J.: Princeton University Press, 2007).
2. See William Arthur Wines, "Seven Pillars of Business Ethics: Toward a Comprehensive Framework," *Journal of Business Ethics* 79 (2008): 483-499; Bernard Berleson and Gary Steiner, *Human Behavior, an Inventory of Scientific Findings* (New York: Harcourt, Brace & World, 1964).

3. Multiple regression results are available on request.
4. See John Rawls, *A Theory of Justice* (Cambridge, Mass.: Belknap Press of Harvard University Press, 1971).

M. SCOTT NIEDERJOHN is an assistant professor of economics and director of the Lakeland College Center for Economic Education in Sheboygan, Wisconsin. He can be reached at niederjohnms@lakeland.edu. **KIM NYGARD** is an accounting student at Lakeland College. She can be reached at NygaardK@lakeland.edu. **WILLIAM C. WOOD** is a professor of economics and director of the James Madison University Center for Economic Education in Harrisonburg, Virginia. He can be reached at woodwc@jmu.edu.

The complete package of 10 lessons discussed in this article, "Teaching the Ethical Foundations of Economics," can be ordered at store.ncee.net/highschool.html. One of the lessons, "Do Businesses Have a Social Responsibility?" is reproduced in this issue of *Social Education* on pages 84–91.

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