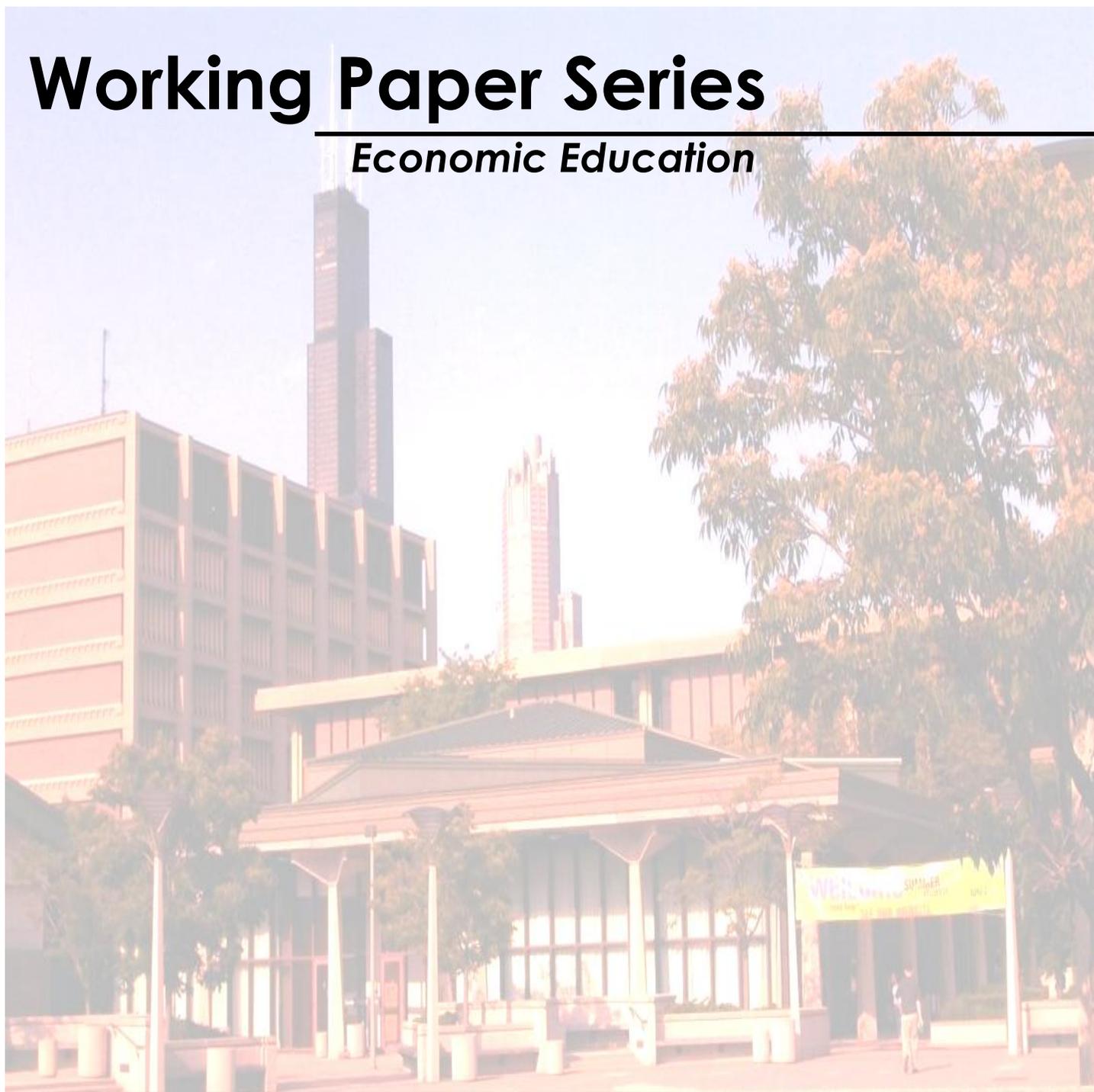


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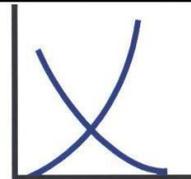


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*Cooperative Learning in a Health Economics
Course: 2008 U.S. Presidential Campaign and
Health Care Reform*

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DRAFT
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Abstract:

The author provides a description of an innovative cooperative learning project set in the context of the 2008 U.S. presidential campaign. Student groups were tasked to become experts on one reform issue pertinent to the U.S. health care system. Students worked independently researching their group's reform issue before collaborating as a group to synthesize their findings. As the designated authorities on their issue student groups organized oral presentations to educate their classmates, providing background information necessary for students to prepare a final individual paper addressing all health care reform issues presented. A key feature of this project is that it builds learning interdependencies within and across groups. Anecdotal and

empirical evidence suggest this project enhanced student learning and interest in health care reform policy.

INTRODUCTION

There is a large body of literature that indicates cooperative learning activities lead to improvements in student learning outcomes such as academic achievement and positive attitude towards the subject matter (Bartlett 2006; Slavin 1995; Sharan 1990; Kagan 1994a; Johnson and Johnson 1989; Johnson, Johnson, and Smith 1991a, 1991b, 1998a, 1998b, 2006; Springer, Stanne, and Donovan 1999; Johnson, Johnson, and Holubec 1990). In a meta-analysis of 168 studies of cooperative learning, Johnson et al. (1998) concluded that cooperative learning promotes higher levels of academic achievement (i.e. knowledge acquisition, retention, and accuracy) than competitive or individualistic learning. Similarly, after analyzing ninety-nine studies comparing student performance in cooperative learning groups with that in control groups studying the same material, Slavin (1995) concluded that 64 percent of the studies found that students in cooperative learning groups scored higher on achievement tests. Additionally, Springer et al. (1999) evaluated thirty-nine studies on undergraduate science, mathematics, engineering, and technology (STEM) courses revealing not only consistently greater academic achievement, but also a more favorable attitude toward learning for students in small groups compared to traditional methods. A succinct summary of the research literature on cooperative learning environments is offered by Bartlett (2006): “Students learn more and learn more effectively, become more involved in the subject matter, and have lower attrition rates” (p. 40).

Despite evidence of the impact of cooperative learning on student outcomes and the call by Becker (1997) for academic economists to move away from lecturing and toward alternative methods of teaching, “the teaching method of choice in undergraduate economics courses – at

least among instructors – has remained chalk and talk” (Watts and Becker 2008, p. 285).

Although there has been some small growth in alternative teaching methods over the past decade, most of this has been focused on classroom discussion and computer lab assignments. Cooperative learning is still rarely used in undergraduate economics classrooms (Watts and Becker 2008).

It is not surprising that few economics instructors implement cooperative learning activities considering the limited number of detailed examples available in the literature of cooperative learning in economics classrooms.¹ This article was written to help fill this void in the literature by providing a detailed example of a cooperative learning project in an economics course. This project was implemented in an undergraduate health economics course using the context of the 2008 United States presidential campaign; however, the project design could be utilized in other courses and with other contexts as well. The basic principles of cooperative learning are first reviewed to highlight key structures. This is followed by a discussion of content and learning objectives, and a description of the project with components linked back to key structures of cooperative learning. Empirical and anecdotal evidence is presented to illustrate the effects of cooperative learning on content knowledge, political opinions, and interest in health care reform policy.

COOPERATIVE LEARNING

“Active learning techniques shift class activity away from teacher-centered process to a student-centered process” (Cameron 1998, p. 246). Cooperative learning is a subset of active learning that involves “instructional use of small groups so that students work together to maximize their own and each others’ learning” (Johnson, Johnson, and Smith 1991b, p. iii). Working in groups, students are engaged in a process that enhances each other’s learning, rather

than being passive recipients of dictated concepts from the instructor. The responsibility for learning is shared by the instructor and the students. Not only do students better learn complex concepts, but they also develop social skills such as learning how to effectively work together in a small group (Johnson, Johnson, and Smith 1991b). Cooperative learning in school is important preparation for the workplace, which often involves working in small interdependent teams in order to solve complex problems (Kagan 1994a).

According to Kagan (1994b), there are four basic structures that characterize cooperative learning. First, positive interdependence builds student responsibility for the learning of the other group members in addition to their own learning. A success for one student means a success for all the students in the group. Second, individual and group accountability ensures that individual contributions to the group provide valuable inputs which enhance the group output. Third, equal participation structures reduce the possibility for free riders and dominant leaders. The final key structure, simultaneous interaction, enhances learning because more students are engaged in the active learning process at any one time. In order for a cooperative learning exercise to be successful, each of these four structures must be implemented. The project described below provides an innovative way to incorporate these key structures, in this case for an undergraduate health economics course.

LEARNING AND CONTENT OBJECTIVES

Classroom activities are typically designed with only content objectives in mind; however, learning objectives must not be neglected. This is because “in most courses we are concerned about helping our students in a life-long learning process; that is, we want to develop interest in further learning and provide a base of concepts and skills that will facilitate further learning and thinking” (McKeachie 2002, p. 11). Consequently, the content objective for

students to be able to understand and evaluate the various reform issues in Senators McCain's and Obama's health care proposals was not the only objective set for this project. Important learning objectives were for students to develop their ability to research, synthesize and communicate both sides of key health care reform policy issues being debated. With these skills students would be prepared to remain actively engaged in the continued debate over health care reform after the course had ended.

PROJECT DESCRIPTION²

The project had three major stages, beginning with an initial individual assignment, followed by a group cooperative phase, which in turn supported the final individual paper. The entire project lasted about five weeks and included both in- and out-of-class work. The class of thirty-nine students was divided into groups of four (or five) and each group was assigned a health care reform issue being debated during the presidential election. For example, one group was tasked to research medical malpractice jury awards and provided question prompts such as: What is the impact, if any, of medical malpractice jury awards on health care costs? Hint: consider defensive medicine and premiums paid for malpractice insurance by medical providers (see Appendix A for the complete list of reform issues and question prompts). Student groups were created using information about students' political affiliation, revealed on an earlier pretest. This was to ensure political heterogeneity within each group so issues would be discussed from all viewpoints during the project.

For the initial stage of the project, students had one week to conduct individual research on their assigned issue. A worksheet guided their research to include background information, examples, and summaries of how Senators McCain's and Obama's proposed policies addressed their assigned issue (see Appendix B). This initial individual writing assignment enhanced

individual accountability, ensuring students were prepared to be active participants in the cooperative phase of the project.

A fifty-minute class period was devoted to the in-class part of the cooperative learning phase. In addition to bringing the individually completed worksheet to class, students were required to bring at least two references to be used as shared resources during the group discussion. Using a round table format, groups began with each group member sequentially sharing his or her response for the background information section of the worksheet. Next, students synthesized the responses utilizing their shared references to resolve inconsistencies between responses until reaching a final consensus for a group answer for the background section of the worksheet. This process was repeated for the remaining examples and policy sections of the worksheet. To reinforce equal participation, each of the four group members served as the leader of the discussion for one of the four worksheet sections.³

The group worksheets were collected at the end of the class period and returned to student groups the next class with feedback and suggestions for improvement or extension. The groups worked together outside of class over the next week on the second part of the cooperative learning phase – enhancing their worksheet responses and translating them into a ten-minute oral presentation. On presentation day, group members were assigned at random to present information associated with each of the four worksheet sections.⁴ Since each student would present one section but it was not known in advance which one, group members had the incentive to work together to ensure that all members could confidently present every section. This component of the project integrates strong positive interdependence and equal participation since the group's grade would be based on the group presentation as a whole, but group members were randomly selected to present the sections.

The final stage of the project required students to synthesize and evaluate the information presented by all groups in an individually authored paper. The students were instructed to picture themselves as a third party presidential candidate and to present and discuss their position on each of the health care reform issues presented in class. Since students had only researched one of the issues intensely, they had to rely heavily on the information presented by the other groups. Consequently, this project design promotes positive interdependence not only among group members within a group, but also among groups.

DATA

Data was collected for thirty-nine students enrolled in an undergraduate health economics class at a large, urban, public university. Since the course was an upper division elective, students were primarily seniors and economics majors. Approximately two-thirds of the class was male and one-third female with a median age of 22 years. Students enrolled in the course were carrying an average of 14.77 credit hours, nearly a full class more than was required for full time status (12 credit hours). The average GPA for the students in the class was 2.98 on a 4.0 scale.

RESULTS

In order to evaluate the extent to which students met the learning objective of improving their abilities to research, synthesize and communicate health care reform policies and the content objective for them to understand and evaluate the various issues in health care reform proposals, anecdotal and empirical evidence was gathered. In the case of the former, students rigorously researched their assigned issues while completing their individual worksheets, effectively worked together as a group to synthesize their individual thoughts and contributions, and then clearly communicated their group's presentation to the rest of the class.⁵ Further, the

students effectively used the information presented by their peers to write clear, thought-provoking final individual papers. Students generally selected positions that crossed political party lines, illustrating that they were able to apply their new knowledge to formulate their own positions about health care reform rather than defaulting to a particular political party's position for every issue.

Measured outcomes for the students in this class covered content knowledge, political opinions and interest level, gathered using pre- and posttests (see Appendix C) and student surveys. The pretest was administered on each student's first day in class, and the posttest was given after students finished the project. Students completed the survey in the last week of the semester. There were twelve questions on the pre- and posttests covering health care content: a general question about insurance coverage in the U.S. (Question 9), questions about specific health care reform issues covered in the project (Questions 10-18), and questions about the presidential candidates' political platforms with regard with health care reform (Questions 19 and 20). An index was created to analyze the pre- and posttest results for the content questions by assigning a 0 (incorrect) or 1 (correct) to each student response, calculating the mean value for each question, and then averaging the question means for various groups of questions. A statistically significant increase in the index value for the full set of content questions (Questions 9-20) from the pretest to posttest (0.64 to 0.86) suggests overall student learning.⁶ Subgroups of the content questions created from multiple groupings of the questions about insurance coverage in the U.S., reform issues assigned, and candidate positions were tested as well, revealing a significantly higher index for the posttest in every case (see Table 1). Additionally, each individual content question was tested for a statistically significant change in the proportion of students answering correctly from the pretest to the posttest. The difference was significant at the

5 or 1 percent level for each question with the exception of Question 12, which did not have a statistically significant difference.⁷

Students were also asked to rate their knowledge about health care reform issues being debated in the presidential campaign as none, fair, good and excellent. Approximately 15 percent of students ranked their knowledge as good or excellent prior to the project, while this rose to approximately 82 percent on the posttest. Further, when students were asked to self-report how their knowledge of health care reform policy changed as a result of the project, every student in the class responded that his or her level of knowledge of health care reform policy increased.

In order to reveal the level of importance students placed on health care relative to other prominent political issues, students were asked to rank the following by level of personal importance: war in Iraq, economy/jobs, health care, and gas prices/energy policy (see Table 2). The economy was ranked as the most important issue by 85 percent of the students on the pretest and this increased slightly to 87 percent on the posttest. In terms of health care, there was a move from the majority of the class ranking health care as the third most important issue on the pretest (49 percent) to the majority ranking health care as the second most important issue on the posttest (54 percent). Further, on the pretest there were no students who ranked health care as the most important issue, but on the posttest this changed to be approximately 8 percent of the class.

The result of greater importance designated to health care is even more revealing given the state of the economy during the fall of 2008 when this course was taught. The world was awakening to a financial crisis and watching it worsen over this time period; therefore, it is not surprising that the economy remained the number one concern for students. However, it is interesting to highlight that there was a larger increase in the percentage of students ranking health care as most important (8 percentage points) than the increase in the percentage of

students ranking the economy as most important (3 percentage points). Given the dramatic weakening of the economy during this time, this suggests that there was a meaningful increase in students viewing health care as the most important issue.

It is recognized that this trend of health care rising in importance from the pre- to posttests may also be driven by factors other than the students' participation in the project. For example, this trend could be a consequence of students simply being in the health economics course, or the significant news coverage on health care reform during the months prior to the election. Additionally, during these months there was a fall in gas prices that may have led to a decrease in the ranking for energy policy and a consequent increase in the ranking for health care.

Table 3 presents results from the pre- and posttests for two opinion questions about health insurance and also political affiliation. Students indicated little shift in their position as to whether all Americans should have health insurance (Question 5), with a majority supportive in both cases. Opinions on how health insurance should be provided revealed that students supported a mix of government and private insurers, and that the percentage of students with this position grew (Question 6). Smaller shifts occurred for the percentage of students who thought that government should be completely in charge of providing health insurance or that it should be left entirely to private companies. All students on the posttest revealed a position compared to the nearly 13 percent who were uncertain at the start of the class. This indicates that regardless of the position selected, students felt they had gained adequate knowledge to evaluate the alternative options for health insurance provision and determine their personal position.

Students were asked to indicate whether they had a particular political party affiliation on both the pretest and posttest to observe whether there were any differences between students'

responses (Question 7). There was a notable decrease in the percentage of students who selected undecided on the pretest (18 percent) to the posttest (3 percent). Likewise, there was an increase in the percentage of students selecting Republican, Democrat, or Independent as their party affiliation from the pretest to the posttest. Given that this project was completed during a presidential campaign period, it is possible that this change from undecided to selecting a specific party was the result of the heightened political climate rather than the project. However, it is important to note that this project caused students to become actively engaged in this political climate.

Research on cooperative learning reveals that it promotes greater interest in the subject matter. Data from the posttest support that this holds for this cooperative learning exercise as well. Nearly 90 percent of students responded that their interest in health care reform policy increased as a result of the project (the remaining students responded that their interest level remained the same). Thus, students overwhelmingly thought that they not only learned about health care policy, but also developed a heightened level of interest in the subject matter as a result of the project. Also notable, although not necessarily reflective of the project alone, was an increase in student interest in health economics before and after the course revealed in the student surveys at the end of the semester. The student percentages ranking interest in health economics before the course were: 26 percent (low), 59 percent (medium), and 15 percent (high). These percentages shifted in the direction of more interest when ranking interest after the course: 0 percent (low), 46 percent (medium), and 54 percent (high).

In order to gain a better sense of students' perceptions of the project, written feedback was requested from the students as part of the posttest. Overall, students had positive things to say about the project and its various components. Students commented that it was "helpful to

understand various issues of health care” and that it was “fun working with different members and different ideas.” Other students noted that the project was a way to “learn more and retain it instead of only memorizing for a test” and that “the project helped me make an informed decision on who [sic] to vote for.” In terms of the structure of the project, one student noted that the “worksheets helped me organize my thoughts” and another stated that “every portion was a step towards understanding more about the topics.” Further, one student commented that the most beneficial aspect of the project was that he “learned new relevant information from fellow students” which he later added was “something new.” Many students made similar comments about how much they valued the other groups’ presentations and how they learned a great deal from their fellow classmates.

CONCLUSION

Overall, the impact of this cooperative learning project was positive. Students not only increased their knowledge of health care reform issues, but also left the class with heightened interest that will probe them to continue to stay engaged with the health care reform debate by reading the news and pursuing future research. Instead of simply reading about the components of the health care system, by utilizing a cooperative learning design in the context of current events, this project brought the issues to life. This article was written to add another detailed example of effective use of cooperative learning in economics to the literature with the intention that more economics instructors will embrace cooperative learning techniques in their classrooms.

Since the design of this project is independent from the context of health care reform it can be used as a model to develop projects for other economics courses. Topics that are multi-faceted such as taxation, free trade and antitrust regulation are examples of topics that could be developed using this project design. After selecting a topic, an instructor should identify the

issues (sub-topics) that student groups will research and then create worksheets with multiple sections of analysis. Because the number of issues analyzed and sections included in the worksheets can be easily changed, this project design can be adapted to accommodate a wide range of class sizes. However, in order to maintain the underlying structure of the project design the number of student groups must match the number of issues analyzed within the overarching topic, and the number of students within each group must match the number of sections in the worksheets (and subsequent oral presentations).

Possible extensions or modifications to this project design are briefing documents and digital presentations. Requiring student groups to create a one or two page briefing document summarizing key information could free time during the presentations for more discussion of complex issues and provide students with an alternative reference when writing the final comprehensive paper. Another possible modification is for students to create digital presentations (“digital stories”) rather than in-class oral presentations. For example, students could create movies from PowerPoint slides using LecShare software that could be posted online using a course management system (e.g. Blackboard) for the rest of the class to watch.⁸ This option would provide students the opportunity to develop technology skills that are becoming increasingly valuable in the workplace, and might be a good choice for large classes where it is not possible to devote the necessary class time to oral presentations.

There were two lessons learned from implementing this project that should be considered when using this project design in the future. First, it is important to reflect on the level of complexity and logistical constraints facing students when choosing the deadlines for the project components. For this health care reform project, the time frame used was roughly one week for independent research, one week for group presentation preparation, one week for oral

presentations, and two weeks for writing the final paper. After observing the students and reading post-project feedback, I realized that students would have benefited from additional time during the in-class group round table exercise, for group presentation preparation outside of class, and when writing the final individual paper. This need for additional time is a reflection of the complex nature of health care reform and that many of the students in the class commuted (making group meetings outside of class difficult to arrange).

Second, scheduling a “check-in” meeting with the instructor and each group while students are preparing their group oral presentations outside of class would be useful in order to detect and address any difficulties within a group. Since students depend heavily on their peer presentations in this project, it is important that these presentations are of high quality. In the health care reform project there was one group that could have benefited from this type of meeting. Strong personality differences and an attempt to minimize preparation time resulted in this group dividing preparation work and piecing together a weak oral presentation. Meeting with this group before presentation day would have revealed these challenges and provided an opportunity to assist this group in developing a plan for successful collaboration, leading to a more effective presentation.

While the results described herein provide evidence of increased student learning and interest, this study has limitations because it is a case study of a single class. More research is needed evaluating the impact of cooperative learning activities in economics classrooms. Specifically, more studies using a control group design in economics classrooms where the same content is covered but some students learn the material through a cooperative learning activity while others are taught using traditional lecture format would be valuable contributions to the literature.⁹ Additionally, more studies using large class sizes or multiple classes would provide

the number of observations necessary to use multivariate analyses to disentangle the impact of cooperative learning activities on student learning outcomes from other confounding factors (e.g. student-specific characteristics such as aptitude and educational background).

TABLE 1. Groupings of Health Care Reform Content Questions

	Index		Significant difference?
	Pre	Post	
All content questions: Questions 9-20 (insurance coverage in U.S., 9 reform issues assigned, candidate positions)	0.64 <i>0.18</i>	0.86 <i>0.11</i>	Yes***
Subgroup: Questions 9-18 (insurance coverage in U.S., 9 reform issues assigned)	0.69 <i>0.15</i>	0.89 <i>0.07</i>	Yes***
Subgroup: Questions 10-18 (9 reform issues assigned)	0.71 <i>0.14</i>	0.89 <i>0.07</i>	Yes***
Subgroup: Questions 19, 20 (candidate positions)	0.40 <i>0.09</i>	0.71 <i>0.16</i>	Yes***

Notes: Standard Deviations are in italics; N=39

*** statistically significant at 1 percent level

TABLE 2. Political Issues Ranking

Political Issue	Percentage of Students Who Ranked the Issue in Terms of Importance							
	Most		Second Most		Third Most		Least	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
War in Iraq	7.69	2.56	25.64	7.69	28.11	38.46	38.46	51.28
Economy/Jobs	84.62	87.18	7.69	12.82	5.13	0	2.56	0
Health Care	0	7.69	30.77	53.85	48.72	25.64	20.51	12.82
Gas Prices/ Energy Policy	7.69	2.56	35.9	25.64	17.95	35.9	38.46	35.9

Notes: N=39

TABLE 3. Opinion and Political Affiliation Questions

	<u>Percentage</u>	
	<u>Pre</u>	<u>Post</u>
Question 5. Health insurance is something that every American should have.		
Strongly agree	58.97	56.41
Agree	33.33	35.9
Disagree	5.13	7.69
Strongly disagree	2.56	0
Question 6. How involved do you think the government should be in providing health insurance?		
Completely in charge	7.69	5.13
Both gov't and private insurers	71.79	84.62
Not at all (only private insurers)	7.69	10.26
Uncertain	12.82	0
Question 7. Overall how would you rank yourself using the following scale?		
Democrat	48.72	51.28
Republican	10.26	12.82
Independent	20.51	30.77
Other Party	2.56	2.56
Undecided	17.95	2.56

Notes: N=39

Appendix A: List of Health Care Reform Issues Assigned to Groups and Prompts for each Issue

1. Pre-existing conditions
What is meant by the term “pre-existing medical conditions” and how does it impact the accessibility to health insurance? Why do insurance companies care about the pre-existing conditions or health status of their applicants?
2. Portability
What is meant by the term “portability” in the health insurance industry? How does it impact individuals’ job choices? Hint: consider “job lock”
3. Insurance mandates
In the context of the current health care debate, what are health insurance coverage mandates? To whom do they apply? Are there different types of coverage mandates?
4. Public health care programs
Currently there are existing public health care programs Medicare, Medicaid and SCHIP. Explain these programs. Who do they cover? Discuss the potential for expanding these programs.
5. Tax credits and subsidies
Are tax credits or subsidies an effective way of extending health insurance coverage? If so, to whom could they be given and in what amount?
6. Medical malpractice jury awards
What are medical malpractice jury awards? What is the impact, if any, of medical malpractice jury awards on health care costs? Hint: consider defensive medicine and premiums paid for malpractice insurance by medical providers (i.e. physicians, hospitals)
7. Electronic medical records
Could the use of electronic medical records/health information technology improve costs and efficiencies in the delivery of health care? What impact would this have on costs in the short run and long run? List the potential problems of utilizing electronic medical records, if any.
8. Government-sponsored insurance pools
What are government-sponsored medical insurance pools? Why are they created? Are they an effective means of expanding health insurance coverage to more individuals? Hint: consider state level pools that already exist (i.e. Massachusetts plan)
9. Pharmaceutical drugs
How does the rate of increase in pharmaceutical drug prices compare with general prices? Does the government currently intervene in the pharmaceutical market? Hint: consider Medicare Part D and reimportation

Appendix B: Student Individual/Group Worksheet

Name: _____

Group number: _____

Section 1

- a) Define and explain your issue. Provide some background knowledge about your issue. Why is it important? Who does it affect?
- b) Describe the current status of your issue in the U.S. health care system. For example, is it already present in the current system? If yes, to what extent? Include statistics if possible.

Section 2

Provide 2 examples that illustrate your issue. These can be actual cases that you find in your research or hypothetical examples.

- 1)
- 2)

Section 3

Discuss how Senator McCain's health care reform proposal addresses this issue. Who would be affected by this proposal and in what way?

Section 4

Discuss how Senator Obama's health care reform proposal addresses this issue. Who would be affected by this proposal and in what way?

Appendix C: Pre- and Posttest

1-4. American voters are considering and debating several very important issues concerning the November 2008 Presidential elections. Questions 1-4 ask you to rank some of these issues. Select A, B, C, or D for each question. You should use each choice (A, B, C, or D) once and only once.

- A) War in Iraq
- B) Economy/Jobs
- C) Health Care
- D) Gas Prices/Energy Policy

- 1. Which issue would you rank as the MOST important to you? _____
- 2. Which issue would you rank as the SECOND MOST important to you? _____
- 3. Which issue would you rank as the THIRD MOST important to you? _____
- 4. Which issue would you rank as the FOURTH MOST important (LEAST IMPORTANT) to you? _____

- 5. Health insurance is something that every American should have.
 - a. Strongly agree
 - b. Agree
 - c. Disagree
 - d. Strongly disagree

- 6. How involved do you think the government should be in providing health insurance?
 - a. Completely in charge
 - b. Both government and private insurance companies should provide insurance
 - c. Government not involved at all (private insurance companies should be the only insurers)
 - d. Uncertain

- 7. Overall how would you rank yourself using the following scale? Select A, B, C, D or E. _____
If you selected D, please indicate which party: _____

A	B	C	D	E
Democrat	Republican	Independent	Other Party	Undecided

- 8. How much knowledge do you feel you have about the health care issues being debated in the presidential campaign?
 - a. Excellent
 - b. Good
 - c. Fair
 - d. None

9. According to the U.S. Census Bureau figures from 2006, the number of people currently uninsured in the United States is approximately
 - a. 11 million
 - b. 28 million
 - c. 47 million
 - d. 95 million

10. Insurance companies consider it irrelevant if an applicant has a pre-existing medical condition(s).
 - a. True
 - b. False

11. What is it called when an individual stays at a job solely because he/she does not want to lose his/her current employer sponsored health insurance plan?
 - a. Discrimination
 - b. Job lock
 - c. Employer benefit
 - d. Convenience

12. Which, if any, of the following groups of people could be affected by health insurance coverage mandates?
 - a. Individuals
 - b. Employers
 - c. Both a and b
 - d. None of the above

13. Medicare is a government program that pays for certain health care services for what Americans?
 - a. 18 years and under
 - b. 65 years and older
 - c. All Americans
 - d. Low income individuals

14. Federal tax subsidies/credits through the Internal Revenue Service Tax Code can be a means of extending health insurance coverage.
 - a. True
 - b. False

15. If a physician overutilizes medical services when caring for a patient in an attempt to prevent a medical malpractice suit this is called
- Intensive medicine
 - Defensive medicine
 - Illegal
 - Preventive medicine
16. A change from paper to electronic medical records in health care delivery would
- Raise short-term cost and raise long-term cost
 - Lower short-term cost and raise long-term cost
 - Raise short-term cost and lower long-term cost
 - Lower short-term cost and lower long-term cost
17. State government sponsored health insurance pools are currently offered in
- Massachusetts only
 - All states
 - Some states
 - No states
18. The U.S. federal government has the responsibility of establishing pharmaceutical drug prices.
- True
 - False
19. If Senator Obama is elected President of the United States, he plans to
- Mandate that every individual have health insurance
 - Allow individuals to buy an insurance plan similar to that offered to federal government employees
 - Prevent employers from providing health insurance
 - Limit the amount of malpractice jury awards
20. If Senator McCain is elected President of the United States, he plans to
- Mandate that every individual have health insurance
 - Allow individuals to buy an insurance plan similar to that offered to federal government employees
 - Prevent employers from providing health insurance
 - Limit the amount of malpractice jury awards

Post-project feedback (included on posttest only):

21. As a result of this project, my interest in health care reform policy has

- a. Increased
- b. Remained the same
- c. Decreased

22. As a result of this project, my knowledge of health care reform policy has

- a. Increased
- b. Remained the same
- c. Decreased

Please comment on specific characteristics of this project that were most beneficial to you:

Please comment on specific aspects of this project that you feel need improvement:

Other comments about this project:

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NOTES

¹ Discussion of cooperative learning techniques implemented in economics classrooms can be found in McGoldrick et al. (forthcoming), Maier and Keenan (1994), Bartlett (2006), Yamarik (2007), Cohn (1999), Johnston et al. (2000), and White (1997).

² Additional discussion of this project can be found in McGoldrick et al. (forthcoming) and the Starting Point: Teaching and Learning Economics website (<http://serc.carleton.edu/econ/index.html>). The Starting Point website also includes access to student handouts and worksheets used for this project.

³ Groups with five members were instructed to choose one section from the worksheet to break into two parts so there were five sections to discuss.

⁴ Groups of five members were instructed to break one section of the presentation into two parts so that there were five sections in the group presentation.

⁵ There was one group that was an exception. This group did not successfully work together because of personality differences, poor communication, and an attempt to minimize preparation time by dividing the work without any group feedback or collaboration. Consequently, the group oral presentation was incomplete and unorganized. Adding a group “check-in” meeting with the instructor before presentation day would allow the instructor to discover such difficulties and assist groups like this to create a more effective presentation.

⁶ It is possible for the index to decrease from the pre- to posttest if students answered questions correctly on the pretest but incorrectly on the posttest, likely due to guessing in both cases. This occurred for a small percentage (5.34 percent) of the student responses for the content questions, suggestive that guessing played a small role relative to learning.

⁷ These additional details are available from the author upon request.

⁸ The University of Houston has a useful website on the educational uses of digital storytelling, including examples and information on software options.

⁹ Yamarik (2007), Marburger (2005), and Johnston et al. (2000) are examples of existing studies in economics classrooms utilizing control groups.