

## A STUDENT-TO-STUDENT PROGRAM: THE POLICY FAIR

Fred C. White

### Abstract

Student participation in such instructional activities as presentations, panel discussions, and projects can be used to stimulate interest and learning. Such activities need not be limited to a single class. This paper describes potential linkages between selected classes in which students from upper level or graduate classes are used as instructional resources in other classes. The general approach, which is described as a student-to-student program, has been applied in a Policy Fair. The Policy Fair is described and evaluated in this paper. There was widespread support among faculty, graduate students, and undergraduates for the general concept and this specific application.

*Key words:* teaching, student involvement, instructional resources, innovative instructional techniques, graduate and undergraduate education.

Agricultural economics teachers are continually looking for innovative instructional techniques to stimulate student interest and learning. However, instructional resources are generally so limited that it is difficult to develop and/or maintain such innovative activities. Even with these resource constraints, teachers may be overlooking some opportunities that could be used to expand the resource base used to support their instructional activities. In particular, the students themselves in some cases can be viewed as valuable instructional resources if properly managed. This paper describes a type of program that can be used to develop complementary projects and interactions among graduate and undergraduate classes. A particular application of the concept to agricultural policy classes is presented.

The agricultural economics literature contains several articles that report on teaching methods. Articles by Debertin *et al.*, McClelland and Broder, and White relate to specialized topics of production economics, consumer economics, and agricultural policy, respectively. Each of these articles intro-

duces a single instructional method, describing how it has been or can be implemented in a course. Previous literature on teaching focuses on instructional methods for improving undergraduate education and not on graduate education. The current study addresses potential links between undergraduate and graduate education that could be exploited in efforts to improve instruction.

### THE GENERAL CONCEPT

Undergraduate and graduate courses on related subjects taught during the same term may offer unique opportunities to develop complementary projects for the two groups of students or to develop important interactions between the two groups. A graduate course in a particular subject would generally cover the material at a more advanced level than a comparable course for undergraduates. Hence, students in the graduate course might be viewed as potential instructional resources to be used with undergraduates. Alternatively, the undergraduate might be viewed as a ready-made audience for certain types of projects, programs, and presentations by the graduate students.

Graduate students often need to develop and practice the skill of making nontechnical presentations. Such practice sessions may not be appropriate for graduate student audiences, who generally expect more technical presentations. Participation of graduate students in special projects and panel discussions, as well as individual and group presentations in undergraduate classes, can help the graduate students learn how to develop nontechnical presentations and enrich the undergraduate classes by offering a variety of perspectives from people other than the instructor.

Graduate students presenting educational materials to undergraduate students through such instructional methods as lecturing, leading group discussions, and participating in debates and panel discussions can be called "student-to-student" programs. The overall objective of such programs is to enrich the educational experiences of both under-

---

Fred C. White is a Professor in the Department of Agricultural Economics at the University of Georgia, Athens, GA. Copyright 1990, Southern Agricultural Economics Association.

graduate and graduate students. Specific objectives of these programs are as follows.

The objectives related to the graduate students are

- (1) to improve their research skills by exploring selected copies for presentation and
- (2) to improve their communication skills by making presentations to undergraduates.

The objectives related to undergraduates are

- (1) to facilitate their learning through additional instructional resources,
- (2) to broaden the educational experience of undergraduates by exposing them to a variety of perspectives, and
- (3) to stimulate student interest through innovative teaching techniques.

### A SPECIFIC APPLICATION

The basic concept of "student-to-student" programs and their operation has been described; the remainder of the paper will address a particular application of the concept. This application was implemented in agricultural policy classes at the University of Georgia, spring quarter, 1989. The particular program is called the Policy Fair.

#### Description of the Policy Fair

As part of the Policy Fair, graduate students in agricultural policy presented a variety of related topics to an undergraduate agricultural policy class. The overall theme of the Policy Fair related to international agricultural trade policy. The objective of the Policy Fair was to increase students' understanding of important trade policy issues.

General topics included the trade deficit, exchange rates, and the General Agreement on Tariffs and Trade. These three topics were covered in concurrent sessions on the first day of the Policy Fair. The sessions were repeated so that students could attend each session. The second day of the Policy Fair included concurrent sessions on the special topics of the U.S.-Canada Free Trade Agreement, the European Economic Community's Common Agricultural Policy, and new directions in trade policy that reduce trade distortions. Again, the sessions on special topics were repeated so that students could attend all sessions.

The Policy Fair was attended by faculty, undergraduates, and graduate students. All participants were divided into three groups, which rotated among the various presentations. Group leaders were appointed to escort the groups to presentations at scheduled time intervals. Twelve minutes were

allowed for each presentation, including time for questions from the audience.

#### Evaluation Procedure

The ultimate measure of effectiveness for an instructional program should be student performance (McKeachie, 1987). Hence a direct approach for evaluating the effectiveness of an innovative teaching method such as the Policy Fair would be to compare student achievement under the innovative method and student achievement under a traditional method. Mean test scores on international trade topics were compared for undergraduates who had participated in the Policy Fair and a similar class the previous year that did not participate in the Policy Fair. However, such a comparison is subject to numerous problems related to establishing a suitable control group, establishing controls in the conditions of the experiment, and accounting for interactions among teaching methods, student characteristics, and teacher characteristics (McKeachie, 1978; Cronbach and Snow).

Because it is difficult to overcome these problems and to identify statistically significant differences in the effect on achievement of alternative methods, many instructors evaluating innovative teaching methods simply report on student reactions to the methods. McKeachie (1987) indicates that instructional activities can also be evaluated by using student reports of their perceptions of the teaching and learning that occurred. Furthermore, March indicates that peer ratings, based on actual classroom visitation, are often used to evaluate effectiveness in teaching. The evaluation approach used in this paper reports on the reactions of faculty, undergraduate students, and graduate students to the Policy Fair. Even with similar levels of achievement under the innovative method and the traditional method, the innovative method would be preferred if the responses were favorable, *ceteris paribus*. Furthermore, favorable responses to the innovative method could indicate that this method had a positive influence on learning even though it might be difficult to measure precisely.

At the end of the Policy Fair, participants were asked to evaluate the effectiveness of the activity by answering questionnaires. The questionnaires contained several statements related to the effectiveness of the overall concept and the effectiveness of implementing the concept. There were minor differences between the questionnaires completed by the undergraduates and those completed by faculty and graduate students. In particular, the undergraduates were not asked to evaluate the overall concept of the Policy Fair, nor were they asked to evaluate whether

it was worthwhile for graduate students. Each response could take on a value from 1 to 10, with a value of 1 indicating strong disagreement and a value of 10 indicating strong agreement.

## EVALUATION RESULTS

### Mean Test Scores

The mean test scores of topics on international trade policy were 3 percentage points higher for students who participated in the Policy Fair than for students who took the same course without the Policy Fair during the previous year. Because the standard deviation to test for mean differences is 2.8, the observed difference in mean test scores is not statistically significant at the 5 percent level. However, the long-term impacts on student achievement might be small unless participants continue skill practice and receive critical feedback on their efforts. This conclusion is based on the fact that the Policy Fair was only a part of a larger unit.

The inconclusive nature of these statistical results does not seriously detract from the potential usefulness of the approach, because student achievement is only one criterion to be used in evaluating the approach. The Policy Fair was also designed to motivate and raise students' consciousness of relevant international trade policy issues. Furthermore, the approach gave graduate students an opportunity

to develop and practice research and communication skills. To evaluate other dimensions of the program, assessments from the various participants are considered.

### Faculty Responses

Seven faculty members from the Agricultural Economics Department at the University of Georgia attended the Policy Fair and completed a questionnaire on the effectiveness of the project. The faculty members who attended the Policy Fair were interested in innovative teaching methods and/or in the international trade topic. The faculty were in unanimous agreement that the overall concept of the Policy Fair was excellent (Table 1). Their mean response on this question was 9.1 on a scale of 1 (strongly disagree) to 10 (strongly agree).

The faculty unanimously agreed that the Policy Fair was worthwhile for both undergraduate and graduate students. Their mean response for the question on undergraduates was 8.3 compared with 9.4 for the question on graduates. These responses were statistically different at the 10 percent level, indicating the faculty's perception that the project was better for graduates than for undergraduates.

The faculty agreed that the graduate students were well prepared for their presentations and that the variety of presentations kept the attention of the participants. Furthermore, the faculty reported that

Table 1. Survey Response Evaluating The Policy Fair.

	Faculty		Graduate Students		Undergraduates	
	Agreed (%)	Mean Response <sup>a</sup>	Agreed (%)	Mean Response <sup>a</sup>	Agreed (%)	Mean Response <sup>a</sup>
The Policy Fair was worthwhile for the undergraduate students.	100	8.3	100	8.2	84	7.2
The Policy Fair was worthwhile for the graduate students.	100	9.4	100	8.2	n/a	n/a
The topics presented in the Policy Fair are relevant for understanding agricultural policy.	100	9.4	100	8.6	100	8.4
The variety of perspectives and presentations kept the attention of the participants.	86	7.9	100	7.9	81	6.6
The graduate students making the presentations were well prepared.	100	7.6	100	8.4	90	7.7
The Policy Fair stimulated interest in international agricultural trade policy.	100	8.1	100	8.3	81	6.5
I recommend that similar Policy Fairs be offered in future agricultural policy classes.	100	9.0	100	8.8	81	7.4
I believe that the overall concept of a Policy Fair is excellent.	100	9.1	100	9.0	n/a	n/a

<sup>a</sup>Response on a scale of 1 (strongly disagree) to 10 (strongly agree).

the Policy Fair stimulated interest in the topic of international trade policy. Finally, the faculty recommended that Policy Fairs be offered in future agricultural policy classes. The mean response on this question was 9.0, indicating strong support for the project.

### **Graduate Student Responses**

Eleven graduate students participated in the Policy Fair and completed a questionnaire evaluating the project. Their overall evaluation indicated strong support for the concept of a policy fair as indicated by a mean response on this question of 9.0 (Table 1).

The graduate students felt that the Policy Fair was equally beneficial for undergraduate and graduate students. Their mean responses for the questions related to undergraduates and to graduate students were both 8.2, indicating they agreed the project was worthwhile. The Policy Fair stimulated student interest, as indicated by the graduate students' mean response of 8.3 on this question. The graduate students recommended that the Policy Fair be offered in future classes. Their mean response for this latter question was 8.8, indicating strong agreement.

### **Undergraduate Student Responses**

Thirty-two undergraduate students attended both days and completed a questionnaire on the project. While the undergraduates were not asked to evaluate the overall concept of a policy fair, 81 percent of the undergraduates recommended that the Policy Fair should be offered in the future (Table 1). The mean response for this question was 7.4.

Eighty-four percent of the undergraduates agreed that the Policy Fair was worthwhile. Eighty-one percent of the students agreed that the Policy Fair stimulated their interest in international trade policy. Finally, 81 percent of the students agreed that the variety of perspectives and presentations kept their attention.

### **Comparison Among Groups**

The faculty would be expected to be more knowledgeable about some aspects of teaching than either group of students. In particular, the faculty should be in a better position to judge the relevance of the topics, how well the graduate students were prepared for the presentations, and how worthwhile the program was. The faculty's mean response on relevance of topics was slightly higher than the mean responses by graduate students and undergraduates. However, the faculty's mean response on the preparation by graduate students for their presentations

was lower than the mean responses by undergraduates and graduate students. Their assessment of the graduate students' preparation was probably weighted heavily by the graduate students' responses during the question and answer period. Questions covering a wide range of issues were raised during these periods. Faculty also indicated higher mean responses on how worthwhile the program was.

Mean responses by undergraduates tended to be lower than mean responses by graduate students, ranging from 0.2 to 1.8 lower. This can be partially attributed to the unique topic in this Policy Fair. Over half of the undergraduates expected to have a career not closely related to international trade, while all but one of the graduate students expected to have a career closely related to international trade. If students' career interests were more closely related to the topic, mean responses would have been expected to be higher. However, the topics selected for these programs do not have to be related to students' career interests.

## **CONCLUSIONS**

Innovative teaching techniques often require student involvement in such activities as presentations, panel discussions, and group projects. Limiting participation in these projects to members of the class may unduly limit the effectiveness of these programs. This paper has proposed a novel instructional approach that develops interaction by students in different classes. In particular, opportunities involving students in graduate classes with undergraduate classes have been explored. In the broadest sense, these approaches have been characterized as "student-to-student" programs, because graduate students are proposed as instructional resources in educating undergraduates. The graduate students benefit from developing and applying research and/or teaching skills, while undergraduates benefit from a variety of perspectives and instructional techniques.

The concept of "student-to-student" programs was applied as a policy fair in which graduate students presented materials in agricultural policy to undergraduates. The topic chosen was international trade policy. Faculty, graduate students, and undergraduates who participated in the Policy Fair indicated considerable support both for the general concept and for this specific application.

## REFERENCES

- Cronbach, Lee, and Richard Snow. *Aptitudes and Instructional Methods*. New York, NY: Irvington, 1977.
- Debertin, David L., Angelos Pagoulatos, and Garnett L. Bradford. "Computer Graphics: An Educational Tool in Production Economics." *Am. J. Agr. Econ.*, 59(1977):573-576.
- Marsh, Herbert W. "Students' Evaluations of University Teaching: Dimensionality, Reliability, Validity, Potential Biases, and Utility." *J. Ed. Psych.*, 76(1984):707-754.
- McClelland, John W., and Josef M. Broder. "Teaching Consumer Economics Using Taste Panels." *So. J. Agr. Econ.*, 14 (1982):91-96.
- McKeachie, Wilbert J. *Teaching Tips, A Guidebook for the Beginning College Teacher*. Lexington, MA: D.C. Heath and Co., 1978.
- McKeachie, Wilbert J. "Instructional Evaluation: Current Issues and Possible Improvements (Commentary)." *J. Higher Ed.*, 58(1987):344-350.
- White, Fred C. "Simulation of Agricultural Policy Formation as a Teaching Approach." *Am. J. Agr. Econ.*, 59(1977):225-227.

