A WORKSHOP ON CLASSROOM EXPERIMENTS IN ECONOMOCS

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ABSTRACT

In this workshop we explain how classroom experiments could be used to enhance teaching effectiveness. We will review the available resources for economics instructors. We will discuss the procedures, expected results, and the lessons we learn from some of these experiments. Participants will learn how to start using the introduced resources in their own classrooms.

INTRODUCTION

Experimental Economics has experienced a steadily growing interest by economists during the last decade. This is not surprising since laboratory and field experiments obviously provide a further valuable source of empirical evidence of economic behavior besides statistics, econometrics, polls, interviews and simulations. Experimental economics uses experimental designs and laboratory methods to check and test whether the forecasts made by economic models are plausible. Experimental economists use a controlled laboratory setting to test underlying behavioral assumptions in economic theory. Experimental approach has been also used in other social science fields like psychology, business, finance, and marketing. Roughly speaking, experimental economics is a method of research used to explore economics models by collecting data and testing the hypothesis. On the other hand, the focus of classroom experiments is completely different. Classroom experiments incorporate a simplified setting -which usually involves simple decision making process and participation in markets or simple games- to allow the students see the theory of economics "in action". Using experiments, instructors can explain a lot of complex concepts, and show the students how they, themselves, will actually act if they were confronted with that situation. Given the controlled nature of experiments, the isolation of specific variables and focus on them is possible, which facilitates teaching economic concepts that heavily rely on "all else equal[1]". This can not be achieved in the daily real world decision making situations.

In this workshop, we introduce classroom experiment methods for teaching the basic concepts and models in economics, as well as available resources for instructors. Two of the workshop presenters have been trained in an NSF funded workshop on classroom experiments, at College of William and Mary, in May 2002. The next section lists the available commonly used economic experiments.

[1] This is the assumption of "Ceteris Paribus" that is used in economic theories extensively. This assumption can be easily implemented in experimental settings.

LIST OF COMMON CLASSROOM EXPERIMENTS

Below is a list of some economic classroom experiments available to all instructors. We will introduce some of these experiments at this workshop and review some of the available online resources, too. We will review how to run successful classroom exercises and discuss the efficient methods to collect data and analyze the results based on our experience.

The following experiments are available in the Yandell's book [5]:

1. Ultimatum Bargaining: The Division Experiment
2. Market Equilibrium: Dual Oral Auction
3. Constrained Equilibrium: Double Oral Auction with Price control
4. Tax Incidence: Double Oral Auction with Taxes
5. Diminishing Marginal Returns: Folded paper Factory
6. Monopoly: Price searching Experiment
7. International Trade: A Comparative Advantage Experiment
8. Adverse Selection and Market Failure: A Lemons Experiment
9. Public Goods and Market Failure: Voluntary Contribution Experiment
10. Pollution Rights Trading Experiment
11. A Common Property Experiment
12. Oligopolistic Decision Making: A prisoner's Dilemma Experiment
13. Inflation Uncertainty Experiment
14. Unemployment and Job Search Experiment
15. A Macroeconomic Equilibrium Experiment

This is a list of possible web based experiments on **V***e*conlab [6], University of Virginia (UVA) as of May 26, 2008:

1. Auctions: Buyer's Curse, Common Value, Private Value, Irrigation Reduction
2. Bargaining/Fairness: Ultimatum Game, Reciprocity Game, Room Allocation Game, Trust Game
3. Decisions: Lottery Choice, Probability Matching, Sequential Search
4. Games: Coordination Game, Guessing Game, Matrix Games, Traveler's Dilemma
5. Asymmetric Information: Information Cascades, Signaling Game, Statistical Discrimination
6. Markets: Bertrand, Call Market, Cournot, Double Auction, Market Entry, Posted Offer
7. Public Choice: Common Pool Resource Game, Linear Public Goods, Rent Seeking, Volunteer's Dilemma
8. Guide to Experimenters: Obta ining a Password, Hints on Using the Software, Sample Data Displays, etc.

This is a list of possible web based experiments on Aplia [1], as of May 26, 2008:

1. Supply and Demand
2. Interest Rates
3. Tragedy of the Commons
4. Unemployment Compensation
5. Labor Market
6. Fixed Prices
7. Flexible Prices

In the next section we review our plan for the proposed workshop.

PROPOSED PROCEDURE FOR THIS WORKSHOP

In this workshop we discuss a few widely used classroom experiments (for example market, ultimatum/dictator); and discuss the procedures, expected results, and the lessons we learn from them. We also talk about how to motivate students to be actively involved in these experiments. We share some experience based rules for running those experiments within the class time period. Furthermore, there will be a discussion about the economic models underlying these experiments and some sample emerged outcomes in comparison with model predictions. In the literature, to increase the incentives of students to participate in experiments, there should be some cash or non cash prizes for the subjects (students). We talk about how to set an incentive scheme for active participation of students. We present methods to collect and analyze the data for future usage in the classroom. We specify the minimum technology needed to run these classroom exercises, collect data, analyze student responses, and compare it with the prediction from the theoretical model. We also guide the participants to where they can find further resources on classroom experiments. Our goal is that participants will be able to conduct classroom exercises successfully in their own classrooms after attending this workshop.

REFERENCES

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[5] Yandell D. *Using Economic Experiments in the Classroom*. Upper Saddle River, New Jersey: Prentice Hall, 1999.
[6] Holt C. *Veconlab Manual.*