



## Experimental Methods in Economics

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### **Aims of the course:**

The course is a short introduction (12 hrs.) to the behavioral and experimental approach to the study of economic behavior and institutions. Experiments are now an established method of investigation in economics (“experimental economics”) and the experimental method is now widely considered as a tool among others in the typical economist’s toolbox. Its use has shed light on many areas, on the theoretical side (decision theory, game theory, markets) as on the more applied ones (policy, development, labor economics, industrial organization, health economics, etc.). The purpose of this course is to provide students with the methodological skills required to understand the design and the results and the basics on how to conduct experiments in their own research.

### **Learning outcomes and competences:**

Upon successful completion of this course, students will be able to:

- Think in an interdisciplinary way. Behavioral Economics combines knowledge from several disciplines, such as Economics, Psychology, Sociology and Neuroscience. Students will learn how to formalize the concepts from social sciences outside Economics (e.g., fairness, reciprocity, trust, envy etc.) and how to incorporate them into economic models.
- Understand the logic of various types of experiments (lab, field, natural, etc.) and learn how to use experiments to test theoretical ideas.
- Think critically with respect to the results of economic research.

### **Assessment methods:**

Students are required to write an essay (about 2500 words) on a selected topic agreed with the teachers.

**Course contents and Syllabus:**

<p>Lecture 1 19/02/2021 h. 9-12 (3hrs.)</p>	<p>(Tiziana Medda)</p> <p><b>Motivation and overview of experimental methods</b></p> <ul style="list-style-type: none"> <li>• Laboratory experiments in economics: What and Why?</li> <li>• By evaluating some common criticisms of experimental economics, to consider what experiments can tell us about behaviour outside the laboratory.             <ul style="list-style-type: none"> <li>▪ External vs. Internal validity</li> <li>▪ Use unrepresentative subject pools</li> <li>▪ Use artificial tasks</li> <li>▪ Provide inadequate incentives</li> </ul> </li> </ul> <p>Suggested readings:</p> <ul style="list-style-type: none"> <li>• Friedman, D. &amp; Cassar, A., <i>Economics Lab: An Introduction to Experimental Economics</i> Routledge, 2004. Chapter 2.</li> <li>• Falk, A. and Heckman, J. (2009): Lab Experiments Are a Major Source of Knowledge in the Social Sciences. <i>Science</i> 326 (5952): 535-8.</li> <li>• Symposium on 'Experimental economics' in <i>Economic Journal</i>, 1999, F1-F45, containing papers by C. Starmer ('Experimental economics: hard science or wasteful tinkering?'), K. Binmore ('Why experiment in economics?'), G. Loewenstein ('Experimental economics from the viewpoint of behavioural economics') and G. Loomes ('Some lessons from past experiments and some challenges for the future').</li> </ul>
<p>Lecture 2</p>	<p>(Andrea Isoni)</p>

<p>22/02/2021 h. 11-13 (2hrs.)</p>	<p><b>Experimental tests of decision theory</b></p> <ul style="list-style-type: none"> <li>• Introduction to Expected Utility Theory</li> <li>• The Common Ratio Effect, the Common Consequence Effect, and the Preference Reversal phenomenon</li> <li>• Practical issues in designing risky-choice experiments</li> </ul> <p>Suggested readings:</p> <ul style="list-style-type: none"> <li>• Machina, M (1987). Choice under Uncertainty: Problems Solved and Unsolved. <i>Journal of Economic Perspectives</i> 1(1): 121–154.</li> <li>• Seidl, C. (2002). Preference Reversal. <i>Journal of Economic Surveys</i> 16(5): 621–655.</li> <li>• Starmer, C. and Sugden, R. (1991). Does the Random Lottery Incentive System Elicit True Preferences? An Experimental Investigation. <i>American Economic Review</i> 81(4): 971–978.</li> </ul>
<p>Lecture 3 23/02/2021 h. 10-13 (3hrs.)</p>	<p>(Andrea Isoni)</p> <p><b>Nudging and Experiments in Behavioural Change</b></p> <ul style="list-style-type: none"> <li>• The concept of Nudging</li> <li>• Examples of Nudges: Defaults, Social Norms and Honesty Priming</li> <li>• Nudging in the real world: applications by the Behavioural Insights Team (practical challenges in conducting Randomised Control Trials)</li> <li>• Nudging in the lab: understanding when and how nudges work (practical challenges in finding reliable nudges to test new hypotheses)</li> <li>• Replication and pre-registration</li> <li>• An illustration with Honesty Priming</li> </ul> <p>Reading:</p> <ul style="list-style-type: none"> <li>• Thaler, R. H. and Sunstein, C. (2003). Libertarian Paternalism. <i>American Economic Review Papers and Proceedings</i> 93(2): 175–179.</li> <li>• Johnson, E. J. and Goldstein, D. (2003). Do Defaults Save Lives? <i>Science</i> 302: 1338–1339.</li> <li>• Mazar, N., Amir, O. and Ariely, D. (2008). The Dishonesty of Honest People: A Theory of Self-Concept Maintenance. <i>Journal of Marketing Research</i> 45: 633–644.</li> </ul>

	<ul style="list-style-type: none"> <li>• BIT report</li> <li>• Isoni, A., Read, D., Kolodko, J., Arango-Ochoa, J., Chua, J., Tiku, S. and Kariza, A. (2019) "Can Upfront Declarations of Honesty Improve Anonymous Self-Reports of Sensitive Information?" in Bucciol, A. and Montinari, N. (Eds.), <i>Dishonesty in Behavioral Economics</i>, Elsevier.</li> <li>• Verschuere, B., Meijer, E. H., Jim, A., McCarthy, R., Hoogesteyn, K., Skowronski, J., Orthey, R., Acar, O. A., ..., Isoni, A., ..., Yildiz, E. (2018). "Registered Replication Report: Mazar, N., Amir, O., &amp; Ariely, D. (2008)". <i>Advances in Methods and Practices in Psychological Science</i>: 1(3) 299–317.</li> </ul>
<p>Lecture 4 25/02/2021 h. 16-18 (2 hrs.)</p>	<p>(Tommaso Reggiani)</p> <p><b>Field Experiments in Economics: Methodology and Principles</b></p> <ul style="list-style-type: none"> <li>• Introduction to the use of field experiment in economics research</li> </ul> <p>Reading:</p> <ul style="list-style-type: none"> <li>• Harrison, G. W., &amp; List, J. A. (2004). Field experiments. <i>Journal of Economic Literature</i>, 42(4), 1009-1055.</li> <li>• List, J. A. (2007). Field experiments: a bridge between lab and naturally occurring data. <i>The BE Journal of Economic Analysis &amp; Policy</i>, 6(2).</li> <li>• List, J. A. (2011). Why economists should conduct field experiments and 14 tips for pulling one off. <i>Journal of Economic Perspectives</i>, 25(3), 3-16.</li> <li>• Card, D., DellaVigna, S., &amp; Malmendier, U. (2011). The role of theory in field experiments. <i>Journal of Economic Perspectives</i>, 25(3), 39-62.</li> <li>• Czibor, E., Jimenez-Gomez, D., &amp; List, J. A. (2019). The dozen things experimental economists should do (more of). <i>Southern Economic Journal</i>, 86(2), 371-432.</li> <li>• Al-Ubaydli, O., List, J. A., &amp; Suskind, D. L. (2020). What can we learn from experiments? Understanding the threats to the scalability of experimental results. <i>American Economic Review</i>, 107(5), 282-86.</li> </ul>
<p>Lecture 5</p>	<p>(Tommaso Reggiani)</p>

<p>26/02/2021 h. 16-18 (2 hrs.)</p>	<p><b>Field Experiments in Economics: Topics and Applications</b></p> <ul style="list-style-type: none"> <li>• Field experiments in: <ul style="list-style-type: none"> <li>▪ Labour and Education economics</li> <li>▪ Public finance and taxation</li> <li>▪ Health economics</li> <li>▪ Public economics (discrimination)</li> <li>▪ Development economics</li> </ul> </li> </ul> <p>Reading:</p> <ul style="list-style-type: none"> <li>• Heinz, M., Jeworrek, S., Mertins, V., Schumacher, H., &amp; Sutter, M. (2020). Measuring the Indirect Effects of Adverse Employer Behaviour on Worker Productivity: a field Experiment. <i>The Economic Journal</i>, 130(632), 2546-2568.</li> <li>• Falk, A., &amp; Ichino, A. (2006). Clean evidence on peer effects. <i>Journal of Labor Economics</i>, 24(1), 39-57.</li> <li>• Bigoni, M., Fort, M., Nardotto, M., &amp; Reggiani, T. G. (2015). Cooperation or competition? A field experiment on non-monetary learning incentives. <i>The BE Journal of Economic Analysis &amp; Policy</i>, 15(4), 1753-1792.</li> <li>• Bott, K. M., Cappelen, A. W., Sørensen, E. Ø., &amp; Tungodden, B. (2020). You've got mail: A randomized field experiment on tax evasion. <i>Management Science</i>, 66(7), 2801-2819.</li> <li>• Becchetti, L., Pelligra, V., &amp; Reggiani, T. (2017). Information, belief elicitation and threshold effects in the 5X1000 tax scheme: a framed field experiment. <i>International Tax and Public Finance</i>, 24(6), 1026-1049.</li> <li>• Giulietti, C., Tonin, M., &amp; Vlassopoulos, M. (2019). Racial discrimination in local public services: A field experiment in the United States. <i>Journal of the European Economic Association</i>, 17(1), 165-204.</li> <li>• Bertoni, M., Corazzini, L., &amp; Robone, S. (2020). The Good Outcome of Bad News: A Field Experiment on Formatting Breast Cancer Screening Invitation Letters. <i>American Journal of Health Economics</i>, 6(3), 372-409.</li> <li>• Duflo, E. (2006). <i>Field experiments in development economics</i>. Econometric Society Monographs, 42, 322.</li> </ul>