



TeachECONference2021: Inspiring Ideas for Economics Education

Developing the Role of Data in Teaching Introductory Economics

Research Objective and Approach

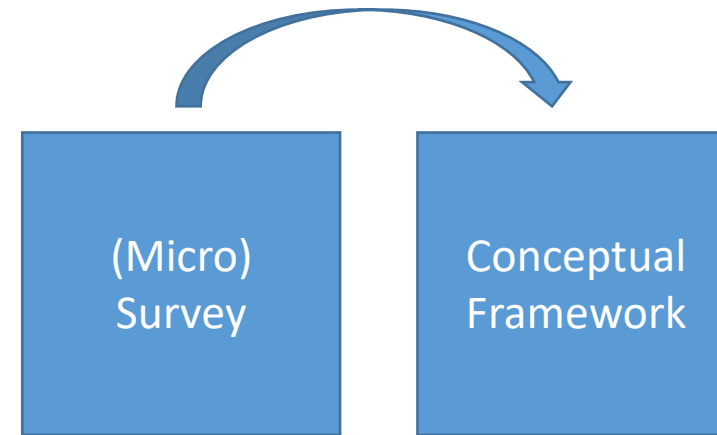
To consider data use in introductory economics education—how data is used to support teaching of introductory/foundational THEORY:

- To understand the range of approaches being employed
- To create a framework for classification of approaches
- How to get the best out of the various approaches that are being employed

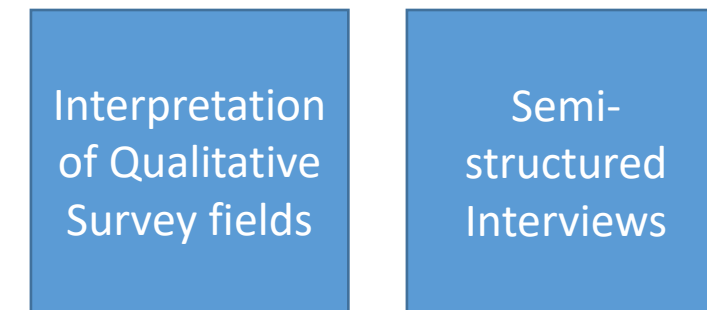
The aims are not:

- To elevate or promote one particular approach over others

Quantitative



Learning Theory

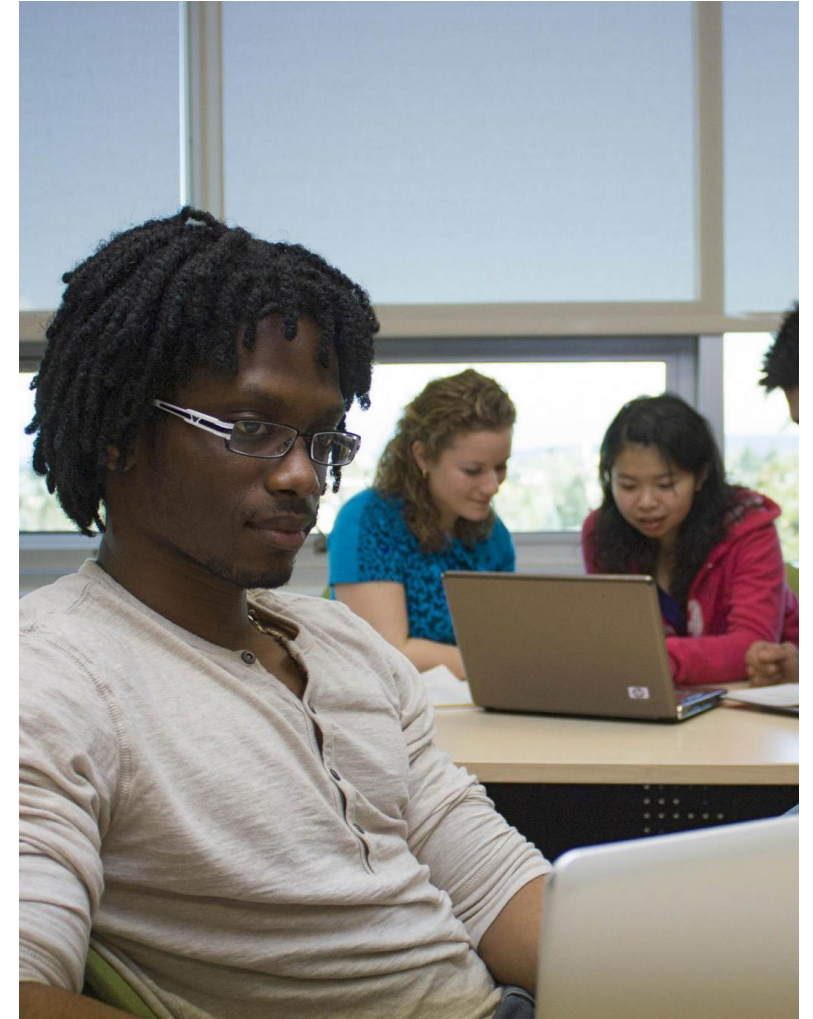


Qualitative

Why data?

Potential functions:

- Providing examples to support teaching of concepts/theory
 - Grabs students' attention, making them less passive (in common with other forms of example (e.g. Simpsons episodes (Hall, 2005; Luccasen and Thomas, 2010)), anchors ideas
 - Builds bridges between existing knowledge and course content/learning objectives (Geerling, 2012)
- Relevance (Sobal, 1981)—especially where student motivation intrinsic
- Skill acquisition and reinforcement
 - Growing relative importance of empirics in economics (Allgood, Walstad, and Siegfried (2015))
 - Data analysis seen as a key proficiency (Hansen, 2001; Myers, Nelson, and Stratton, 2011)



Timing + Approach = A conceptual framework

In the context of the teaching of economic theory data can serve two purposes (Armento (1987), p.179):

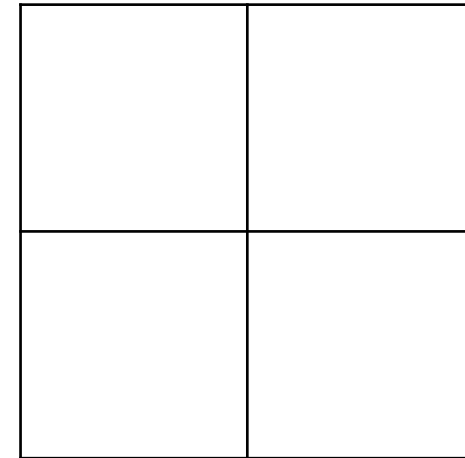
- To **stimulate** interest, getting the attention of learners, before introducing a theory
- To **reinforce** a theoretical idea which has been previously introduced

Two broad strategies which are employed when using data (based on Svensson, Lundqvist, and Middleton (2017)):

- Transmissive approaches:
 - Lecturer-led
 - Behaviouralist
- Transactional approaches:
 - Student-led
 - Experiential
 - 'Constructivist'

Stimulation
(before theory)

Reinforcement
(after theory)

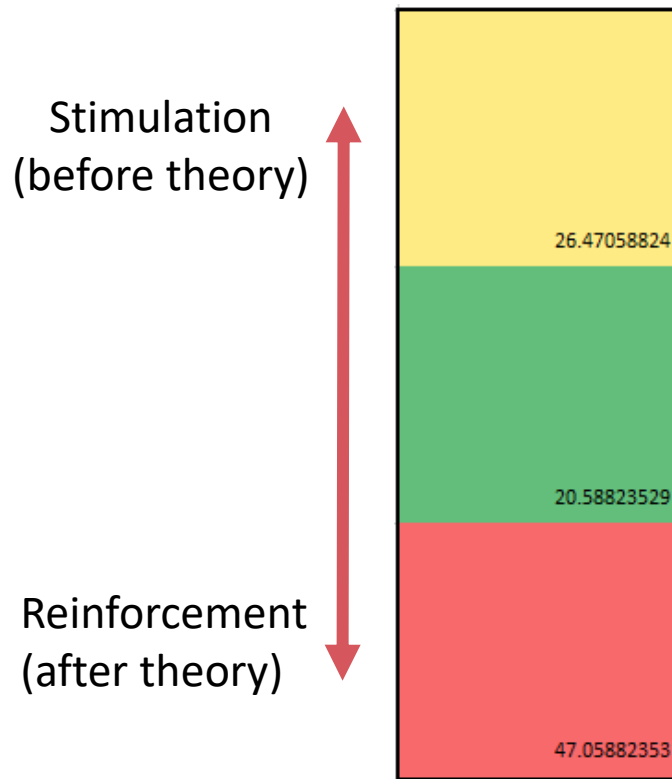


Transmissive
(Lecturer-led)

Transactional
(Student-led)

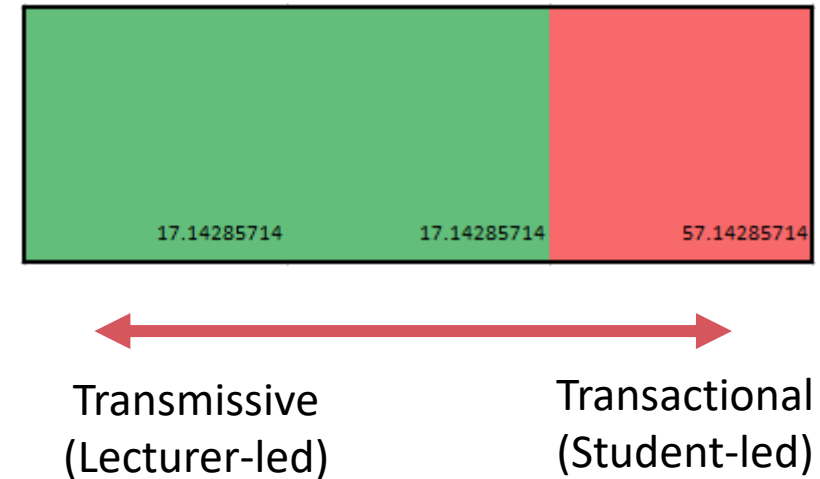
Preview results

How is economic data incorporated into your module? Consider both the order in which content is presented, and who is working with the data



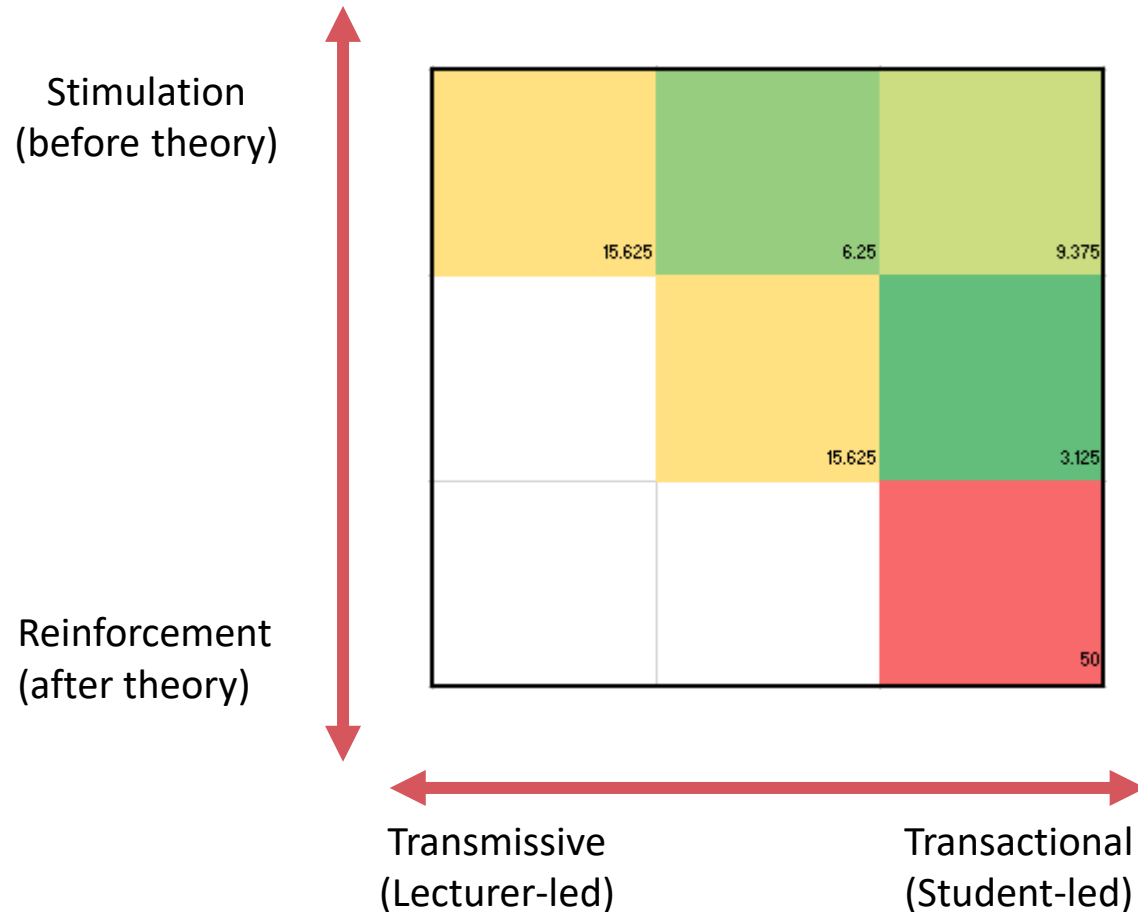
- In general, data is used to reinforce theory
- Around 25% of respondents indicated that data is used to motivate the topic, but with no follow-up reinforcement

- In general, most respondents indicated that the main users of data on their courses were students



Preview results

How is economic data incorporated into your module? Consider both the order in which content is presented, and who is working with the data



- Most lecturers have students working with the data
- Only a small minority use data without incorporating hand-on opportunities for students

Getting the best out of your approach: Transmission

Benefits:

- Learning can be tightly regulated.
- Allows focus on core competencies/skills/knowledge
- Strong alignment between teaching and assessment content

Considerations:

- Social Learning Theory (Bandura, 1978; also Horsburgh and Ippolito, 2018) can be applied to lecturer-student relationship. Has four stages:
 - Attention
 - Retention
 - **Reproduction**
 - **Motivation**
- Students need the opportunity to **reproduce**
- **Motivation** requires conditioning—opportunities for students to receive feedback. Implications for assessment?



Getting the best out of your approach: Transactional



Benefits:

- Associated with development of broader set of competencies beyond subject knowledge/skills:
 - Critical thinking
 - Judgement
 - Self-regulation

Considerations:

- Important to balance scaffolding against freedom to explore—removal of barriers means students might not stay ‘on-track’
- Strategies may be needed to focus students on the task at hand—refresh previous content, use of Advance Organizers (Ausubel, 1978)
- Debriefing
- Consistency across curriculum
- Self-guided work most effective in groups—zone of proximal influence (Vgotsky, 1978)

Next steps

- Survey is still open (link below, or email me)
- Qualitative analysis:
 - Survey open fields
 - Semi-structured interviews
- Consistency between stated objectives/rationale and teaching approach
- Examples of good practice
- Implications for Remote/Blended/In-person teaching

Thank you!

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https://astonbusinessschool.qualtrics.com/jfe/form/SV_clua0MKHQ3XeHVI

Sources

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