**TEACHING TECHNIQUE**

*Combine abstract thinking (the careful and inquisitive reading of a text through an organized class discussion) with a rarely studied type of experiential learning: field visit*

- Activity developed through the Teaching Innovation Program sponsored by NSF and the American Economic Association
- Awareness of potential discrepancy between instructors’ and students’ learning styles (Nilson, 2003):
  - *Academicians are assimilators: “focus on abstract ideas and concepts rather than people or practical applications”*
  - *Students remember 50% of what they hear and see. 70% of what they say.*
  - *90% when hear, see, speak and “do”*
- Limited research in economics and learning preferences: Visual learners (who prefer graphs, charts) perform better in economics classes although most students are multimodal, kinesthetic, or aural learners.

**CLASS SETTING**

Upper Level Labor Economics Class
- 30 students per semester
- Different majors and colleges: Arts & Sciences, Management, Engineering
- More than 50% work at least 20 hours per week (usually 35 hrs)
- 74% are multimodal learners (from VARK questionnaire on learning preferences)
- Data over three years

Challenges:
- Classroom time, main learning time
- Little class collegiality

Start of Semester: *Which topics do you want to learn about?*
- My job prospects
- Offshoring and outsourcing
- Immigration
- Unions
- Emerging technologies and Jobs

**LEARNING OBJECTIVES** built on such interests. To understand the:
- Relationship between division of labor and trade
- Effect of demographic and geographic characteristic on trade
- Direction of causality between division of labor and new technologies.

**Step 1: Read**
Adam Smith’s chapters about Division of Labour

*"...the important business of making a pin is, in this manner, divided into about eighteen distinct operations, which, in some manufactories, are all performed by distinct hands...Each person, therefore,...might be considered as making four thousand eight hundred pins in a day. But if they had all wrought separately and independently,.... they certainly could not each of them have made twenty, perhaps not one pin in a day."

**Step 2: Field Visit** of Lowell National History Park

**See and Hear:** Boott Cotton Mills Museum:

**Role Playing:** Workers on the Line Activity:

**Step 3: Class Discussion**

**Students Become Protagonists by Creating Knowledge. Instructor is ONLY the facilitator**

**Basic interpretative question:**
Recall what you observed last week during our visit at the Boott Cotton Mills Museum. Now think about the three chapters of Smith’s The Wealth of Nations. How would have Smith explained the rise of the Mills, the use they made of labor, and their success?

**Supporting questions**
- How, according to Smith, is the division of labor affected by specific firms’ characteristics (such as size, sector, etc.)?
- According to Smith, what is the relationship between “inventions” and division of labor?
- How, according to Smith, does the division of labor differ between intellectual and manual labor?
- According to Smith, how do the opportunities to trade affect the “difference of talents” among individuals?
- How do you think Smith would have classified the Merrimack River in Lowell? Along with the Rhine and the Ganges or along with the African and Siberian rivers? Why?

**Step 4: Assessment**

**Exam Question:** Suppose Adam Smith observed there was division of labor in economy A but not in economy B. Based on the first three chapters of The Wealth of Nations, how would Smith explain the difference?

**Results**

Students who attended field trip vs. ones who did not: field trip group had statistically significant higher score in Smith’s reading questions (p=0.04) but not in overall test (p=0.85) → field trip experience positively affects achievement of learning objectives if they are framed within well defined course learning objectives

**STUDENTS’ SURVEY**

Students’ statements about the value of different experiential activities

- In the reading “I was expecting old ideas that don’t apply anymore, but I was wrong. It was very interesting.”
- During the class discussion “There are people who better understood the reading and could restate the ideas in the words of a student.”
- The museum visit “helped me with a visualization of what we were learning”
- “The hands-on experience helped to better understand the readings in a fun way”

**Benefits**
- Better, more enjoyable learning, longer lasting learning
- Better understanding of material, bonding with students
- Increased visibility, improved public relations

**Costs**
- Conflicts with other classes, with work
- Time spent organize, sacrifice other topics
- Time spent understand goals, accommodate

**Conclusions**

**DEPARTMENT of ECONOMICS, UML**

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**Bringing the Pin Factory to Life**

Field Trips and Discussions as Forms of Experiential Learning