

# How to Teach the Dismal Science

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## **Introduction; What does Economics Education Look Like?**

The dismal science has a serious problem. Despite being one of the most important realms of knowledge necessary for a sound economy and well-informed voter base, economic literacy rates are woefully low. John Siegfried and Michael Salemi gathered data as follows:

At a time when the size of the federal fiscal deficit was of extreme concern, only 19 percent of the general public and 24 percent of college seniors knew approximately how large it was. Only 2 percent of the public, 12 percent of high-school seniors, and 42 percent of college seniors could recognize an example of a monetary policy action by the Federal Reserve. While 64 percent of the general public and 79 percent of college seniors knew that prices in competitive markets are determined by demand and supply, 65 percent of the public and 43 percent of college seniors believed that, in a crisis, government should control the price of oil.<sup>1</sup>

William Walstad has conducted multiple studies to assess the economic literacy rates among various groups including college and high school seniors. In his paper written with Sam Algood titled *What do college seniors know about economics?* he wrote, “The two-thirds of college seniors who had taken an economics course scored 62-percent correct on the 15 knowledge questions on the Gallup survey. The one-third without economics scored 48-percent correct.”<sup>2</sup> In *Economic Education in U.S. High Schools* he found that the number of high school students enrolled in economics courses rose approximately 20% from 1982 to 1994, and that in 1994 43.8% of high school students had received minimum course credits.<sup>3</sup>

A study was conducted by Wunder et al particularly pertaining not just to literacy in economic theory, but to facts of the economy as it is, dubbed “Fact Based Economic Education”<sup>8</sup> They administered a test on basic economic facts like social security, and how income tax was structured. The results were shocking with results such as 80% of respondents believing that it was possible to pay lower in taxes at a higher tax bracket.

These studies have shown that the state of economic education is not up to levels that it could be. However, in judging whether or not education is valuable or what kinds of education are worth investing in we ironically need to turn to economics. Walstad conducted another study to understand exactly how important economic literacy is in regards to public policy preferences of individuals. He discovered that by far economic knowledge determines which policy individuals tend towards more than any other factor including age, sex, race, education, income, or political party.<sup>4</sup>

Another study was conducted with the same question by Brent Evans more recently to determine the relationship between economic literacy and specific policy preferences in scrutiny during the 2008 financial crisis. He notes in his conclusion,

While Walstad found that economics knowledge was relevant in determining preferences for five out of five proposed policies, I find economic literacy correlates with preferences in three of six cases. Such results are not an indication that economic literacy is losing relevance, but rather reflect the differences between the specific policies studied in these two papers. While Walstad intentionally analyzed policies for which a clear mainstream economic belief had been established, the policies analyzed here include arguably the six

most pertinent macroeconomic issues during the financial crisis, without considering the references of economists.”<sup>5</sup> He also discovered similarly to Walstad that economic literacy was the only factor that was significant in policy preference.

It should be clear now that economic literacy levels need to be risen, and it is unclear why economics in particular is lacking. My hypothesis is that the way in which economics is taught is a major factor. Economics is taught similarly to other social sciences such as history, however economics is more of scientific field of theory and experimentation. In this paper, I will review literature that assess the methods currently being used to teach economics in the United States, and proposals to increase efficacy of said methods or completely replace them with a new curriculum.

### **Literature Review**

This section will be organized into multiple different headers organized by topic.

#### The Principles Course

One phrase that I often came across in my research was “The Principles Course”. Most use this term to mean a basic introductory class to economic principles most often focusing on microeconomics rather than macroeconomics. The principles class is the class most taken by the general public, and there is most often a debate over what topics it should cover. In *The State of Economics Education* Salemi and Siegfried mention that there may be two competing goals of the principles course.<sup>1</sup> One would be to provide students with applicable economic skills to

their lives, and the other would be to prepare them for future studies in the field of economics. The second requires a lot of technical work that takes time away from the practical application and full understanding of the first goal. “The Principles course fails to improve economic literacy of not only those who take it, but also those frightened away by its reputation as a technical course.”<sup>1</sup>

Salemi and Siegfried attempt to solve this problem in *Use it or Lose it: Teaching Economics in the Principles Course*. They propose that the principles course should focus on the core principles of economics rather than the traditional graphs and models that are taught to facilitate a higher economics education.<sup>7</sup> Traditionally the topics are scarcity and choice, economic behavior, allocation of goods and services, markets, factors of production, macroeconomics, and government and economic institutions as defined by the Voluntary National Content Standards in Economics. However, they propose that among these topics certain focuses should be dropped for the Principles class which take up a majority of economics textbooks for this class such as, cost curves, comparisons of imperfectly competitive industries, aggregate demand and supply, elasticity computations, and a majority of graphing. Instead, classes should focus on puzzle-solving and practical applications such as policy, which would focus on the first goal of a principles class. They also propose that a subsequent course could be proposed dubbed “Principles II” that would expand on these other topics as they remain important, but only for higher level economic education.

Additionally, Ninos Malek suggests that normative teaching is appropriate for a principles course.<sup>6</sup> It not only will increase understanding of the role of the subject, but provide further benefits from the first purpose of the Principles course, practicality.

### Alternative Teaching Methods

The traditional method of teaching economics is known as “chalk and talk” which consists of a teacher writing keywords or concepts on a blackboard (or similarly digital slides), and explaining them verbally in a lecture. This method has shown to harm individual student’s learning capacities as they tend to tune out somewhere between 10 and 18 minutes.<sup>6</sup> Surveys of economics educators have shown that alternative teaching methods such as in-class experiments or discussion are dramatically underused. “Classroom experiments are used in rare cases (6 percent) in principles classes and never (0 percent) in all other classes...”<sup>12</sup>

Ninos Malek conducted a study in which he compared the effects of the traditional teaching method to alternative teaching methods in a case-study by conducting two pre-tests, one in supply and demand and the other in property rights, before the classes being studied.<sup>6</sup> A few of the classes used traditional teaching methods as control groups while the others used “experimental methods” such as multimedia, group work, experiments, and normative lessons. After again conducting the same tests for students after the class was complete he surprisingly found no significant statistical difference. He later notes that regardless of the outcomes of his research what must be recognized is again perhaps ironically the economic principle of subjective value. The value of different teaching methods could be further divided to students who learn in different ways, increasing efficiency.

### Economics Teachers

One factor to consider in the efficacy of economics courses is the education level of teachers themselves, especially at the high school level. A study was conducted of University of

North Colorado students who graduated with a secondary social studies degree.<sup>9</sup> Findings were that they mostly spent credit hours learning History and sociology and only took .45 credit hours on average above the required for economics.

To further educate teachers, Salemi puts forward a model in *A model teacher-education program for economics*. “A teacher-training program (TTP) is one strategy departments can use to improve the quality of teaching. A TTP typically targets graduate-student teaching assistants but can also provide valuable education to new junior faculty. The task set for this paper is to describe the ideal TTP. What is ideal is a matter of opinion. The paper begins with principles that should guide creation of a TTP, describe a TTP's essential elements, and conclude with a consideration of resource issues.”<sup>10</sup> Multiple facets of his proposed TTP include giving teachers not only the information to use in their own classrooms, but education in how to teach particularly with active methods such as those used by Malek.

### **Point of Entry**

Much data has been collected on the poor state of economic literacy, and many solutions have been proposed. Any solution would mostly have to do with shedding the burden of being called the dismal science by straying from the traditional teaching methods. However, very few educators are willing to step out of their safe chalk and talk bubbles. Those who do employ alternative methods do not do so in such a way that others who are interested in gathering data on the topic can do so. The research that still needs to be conducted is to deliberately try new methods of teaching at various levels, and to compare their outcomes to the traditional style to determine what the path of economics education in the future should be.

## **Proposed Methods**

I would propose two separate experiments to further advance research into economics education. The first would be a more comprehensive survey that included a question about the methods and the age at which respondents were instructed in economics as well as a question pertaining to their personal disposition towards the economics discipline. Second, a case study in economics seminars that would compare the outcomes of various teaching methods on students at different age levels. This section will go over both of these proposals in detail.

### Expanded Survey

In the introduction to this paper, I laid out numerous surveys that delve into how economically educated the American public is. They surveyed across race, age, income, education level, and separate surveys even targeted different time periods altogether. The data that has been collected is vast, and goes a long way to show that there is much room for improvement. They tied economic literacy easily to policy preference, however there was no causal link studied. No survey attempted to find a variable that contributed to an individual's knowledge level. The literature that I have reviewed shows that the methods used to teach economics certainly can have an affect, and are worth being investigated.

What I propose is a new survey that is based on the others that have been conducted, but that includes two new styles of questions. The first is a question that adds the variable of teaching methods. It would ask anyone has taken a formal economics course, in what environment they were taught, at what age, and whether the methods used were traditional or not. A correlation between this variable and others would be valuable as it assesses reasons for



literacy nationwide. The second pertains to the respondent's disposition on economics as an object of study. Questions would ask whether or not the economics discipline was viewed favorably, and if they had taken economics course whether or not that had changed after the course. This response could be compared with both the literacy and the methods of education.

The survey would come in three sections. The first asks basic demographic questions. The second assesses basic economic literacy and asks about basic economic principles that would be taught in any introductory course. The third section would include questions on whether or not they had received any formal economics education, and the questions that I have added.

The following is a sample survey (subject to change):

- I. Literacy Test (\*is the correct answer, questions taken from source 4)
  1. Which one of the following is the most widely used measure of inflation?
    - a. \*The Consumer Price Index
    - b. The Index of Leading Economic Indicators
    - c. The prime rate
    - d. The Federal Funds Rate
  2. Economic growth is measured by a change in which of the following?
    - a. The money supply
    - b. The Producer Price Index
    - c. \*The Gross Domestic Product
    - d. The balance of payments
  3. When is there a deficit in the Federal Budget? When
    - a. \*government spending is greater than tax revenues.
    - b. U.S. imports are greater than U.S. exports.
    - c. The total demand for money is greater than the total supply of money.
  4. How large is the Federal deficit expected to be in the 2017 fiscal year? It is expected to be about
    - a. 100 billion dollars
    - b. \*400 billion dollars
    - c. 700 billion dollars
    - d. 1 trillion dollars
  5. Who sets monetary policy in the U.S.?
    - a. The President
    - b. Congress

- c. \*The Federal Reserve
  - d. The U.S. Treasury
6. What is an example of monetary policy? A change in
- a. Federal government spending
  - b. \*The discount rate
  - c. Corporate profits
7. Who makes fiscal policy in the U.S.?
- a. \*Congress
  - b. The Federal Reserve
  - c. The U.S. Treasury
  - d. The Department of Interior
8. What is an example of fiscal policy? A change in
- a. \*Federal income tax rates
  - b. The discount rate
  - c. The prime rate
9. What economic policy would most likely be used to combat a recession during a period of low inflation?
- a. An increase in taxes
  - b. \*An increase in the money supply
  - c. An increase in stock market prices
10. Which of the following is most likely to improve the wages of American workers?
- a. An increase in stock market prices
  - b. An increase in business inventories
  - c. \*An increase in productivity
  - d. An increase in interest rates
11. The purchasing power of people's income is most affected by
- a. \*the inflation rate
  - b. The trade deficit
  - c. The balance of payments
12. The basic purpose of profits in our market economy is to
- a. \*lead businesses to produce what consumers want
  - b. Pay for the wages and salaries of workers
  - c. Transfer income to the wealthy
13. The prices of most products in a competitive market are determined by
- a. Government
  - b. Business monopolies
  - c. \*supply and demand
  - d. The Consumer Price Index
14. If the U.S. dollar increases in value, what will most likely be the effect on U.S. exports of goods to other countries?
- a. Increase
  - b. \*Decrease
  - c. Stay the same

15. Does setting quotas on foreign goods imported into the U.S. increase the number of jobs for Americans in the long-run?
- Yes
  - \*No

## II. Education Test

- Have you taken any formal economics classes, and if so to which level?
  - None
  - High School
  - Undergraduate
  - Graduate
- Check which of the following teaching methods were used.
  - Lectures
  - Activities
  - Group Work
  - Multimedia
- Before taking an economics course what was your opinion on studying economics and the economics discipline?
  - Very Unfavorable
  - Unfavorable
  - No Opinion
  - Favorable
  - Very Favorable
- After taking a course in economics did your opinion change? If so to what?
  - Very Unfavorable
  - Unfavorable
  - No Opinion
  - Favorable
  - Very Favorable
  - No difference

### Case Study of Seminars

The second study will be one that aims to directly test alternative methods in a classroom setting in order to compare them to traditional methods. The variables that will be tested are both introducing economics at new age groups and activities based teaching. Sample groups will be collected of individuals that have no formal teaching in economics from different age groups. One will be of primary school children from ages 10 to 14, and the other of high school and college age students from ages 15 to 21. The topics would be different for each age group. All

of the participants will be given an economics test similar to the one above. Then each age group would be split into two sections, one that lectures them in a traditional style with a moderate amount of class discussion, and the other which attempts to use activities to stimulate the students further. What methods to use in the traditional style can be informed by source 12 of this paper. Afterwards the same test will be administered, and results would be compared.

### **Conclusion**

Ironically, what economics needs is a better way to market itself to the world. Many people lost trust in the discipline as a result of the 2008 financial crisis and following recession. Economics education would very likely increase the level to which individuals understood, utilized and trusted experts in economics. There is strong evidence to show that a large reason for the lack of economic literacy and education is the methods with which it is being taught, and an outward appearance change for the community teaching economics would be highly beneficial to economists, students, and the world.

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