

Students Economic Literacy between Real and Ideal

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Abstract

This paper presents vary perspectives on what could represent economic literacy, based on analysis of different tests of economic literacy used to identify economic knowledge and thinking skills of youngsters with special focus on students. The basic assumption is that although all tests of economic literacy are describing the minimum level of economic education needed for an optimal functioning and integration of a person in a contemporary society, for Romanian pre-university system, they are describing more an ideal for economic education than the existing reality. This assumption has been tested in a group of teachers of economics and business from 14 counties in Romania, including Bucharest, the capital city, that have provided information regarding economic knowledge and mentalities they identified at students.

Keywords: *economic literacy, basic economic concepts, economic thinking skills, test of economic literacy*

JEL classification: A20

Introduction

In 1998, a big campaign for economic literacy started in USA. In order to make people and educational decision makers aware of importance of economic education and the need of economic literacy, different materials have been published. Among these was a material presenting the results of a survey on level of economic knowledge of population (NCEE, 1998) that showed that more than half of population of USA could not give correct answers at questions regarding basic economic issues such as minimum wage, income or employment. Experts used these data to ask for more economic instruction in order to empower people with knowledge and understanding of basic economic facts that affect their life. In the same time, they emphasized economic education as a positive externality and public good and highlighted its benefits at individual level and, especially, at community level (Watts, 1998).

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The need for economic education has been put in positive relationship with the need for effective actions of individuals as consumers, workers, savers and, maybe, investors and employers. As consequence, one of the most powerful arguments that support the need for economic education was that persons with economic instruction come to effective behaviors in their economic actions with less efforts and significant lower costs than persons that have to discover ways to act effectively through personal experiences. All economists agree that social benefits of economic education are more important than individual benefits. Economic knowledge and, especially, economic analysis and way of thinking and understanding facts and phenomena from daily life that apparently are not connected with economy, is useful when people have to evaluate public decisions and policies and to vote for one or another. Economic literacy provide two categories of knowledge and skills: economic knowledge and decision making skills (Stigler, 1970). Economic knowledge allow people to understand problems they have as consumers, workers or investors and to interpret economic facts that affect them directly or indirectly. And by this, it helps communities to improve their capacity to understand and evaluate critical problems they face at a time. In addition, economic literacy develops people ability to make informed decisions regarding vary economic problems that may appear in a life time.

1. Economic literacy and basic economic concepts

The main instrument used to identify the level of economic knowledge of people is the test of economic literacy (TEL). First tests of economic literacy have been developed at the end of '80s (Walstad and Soper, 1988) and consisted in sets of multiple choice questions (regularly, four choice questions) with only one correct answer. The questions are relevant for what was considered the minimum economic knowledge needed by population at with general interest (Walstad and Larsen, 1992). Although the questions have changed in time, actually they targeted basic economic concepts and theories related to sensitive public policies such as scarcity, full employment, economic growth, government intervention, price ceilings and floors, production and consumption decisions, production possibilities, inflation, comparative advantage, free trade, international trade, public goods, budget deficit, interest rate, savings and investments, and stock market (see Appendix). TEL question analysis conducts to assumption tests developers had that economic education is important for understanding vary factors that affect the quality of people's life and for diminishing manipulation in respect with issues with personal and public interest.

The most frequent applied TEL includes 20 questions and is completed in the classroom, under teacher supervision or online. Online respondents have the possibility to verify the answers and to repeat the test as many times they want or think is necessary. Only in March 2013-October 2016, for example, over 143,900 persons complete the 20-question TEL (CEE, 2016). The average age of respondents was 24 years. More than 70,000 were high school students. Average score was 70% that means 14 correct answers of 20.

Nowadays discussions on what TEL means and what is the acceptable minimum economic knowledge for a person point out that the necessary economic knowledge is much larger and cannot be reduced at basic economic concepts. Nowadays, economic literacy means financial literacy, career management, business and public sector management too and last, but not least, economic thinking skills or analysis.

2. Economic literacy and economic way of thinking

In his Award Ceremony Speech, 1992 Nobel Prize Laureate for Economic Sciences, Gary Becker, pointed out that nowadays economics is more than a science; it became a way of “looking at life” (Becker, 1992) and understanding the reality. The economic way of thinking could be synthetic defined as application of some basic principles (Walstad, 2000) such as understanding that *there is a cost for everything*, or that *people respond to incentives*. Economic literacy means also the understanding the fact that people always choose having good reasons. This is maybe the most important principle of economic thinking and reasoning. People make always choices and try to choose the most advantages alternative weighting costs and benefits. Their behavior is determined by sets of values and preferences. Economic analysis involves the idea that individuals are acting aiming to maximize their welfare, no matter if they are egoistic, altruistic, loyal, hostile, or malicious. Their behavior is predictable. The key of economic analysis is the idea that people are making choices and these choices are leading the society. All social phenomena have the beginning in decisions made by individuals based on benefits they are expected (Heyne, 1991). Incentives represent the key of action. Market supply and demand, prices, profits, wages, decisions made by authorities are strong related with producers, workers or consumers incentives. The statement “people react to incentives” express the essence of economics (Mankiw, 2003).

Economic literacy means also to understand that *people create economic systems that influence their choices and incentives*, and that in a market system, for example, private property create complex and interdependent sets of incentives: people are working more and using resources much more effective if they are owners and the property rights are granted by law. It means also to understand the role of exchange in achieving personal interest: people are making voluntary trade when they believe that, by doing this, they will be better off; when two persons are making a transaction each of them are giving up to a thing he or she is appreciating in exchange of another thing he or she is wanting or appreciated more; each of them are specializing in production of a particular product or work and are trading a part of his or hers work to get other goods and services. Specialization and trade help people to improve their lives. This is why every effective economic system should encourage specializations and trade.

Economic analysis involve thinking at margin too. This means to identify and analyze effects of a change in the current situation that could represent both an increase or a decrease of one or more variables. To get maximum effects in their

actions, people have to act so that marginal costs to be equal to marginal benefits. All decisions are made based on a marginal analysis. Firms are maximizing their profits if marginal costs are equal to marginal revenue. Individuals are maximizing their satisfaction when marginal cost implied by the consumption of an additional good is equal to marginal benefit gained. Marginal analysis is fundamental in the decision making process and involves taking into account implicit or opportunity costs too.

The price of a good or service is influenced by people choices. Economic literacy means to understand that the market price is not the price of producers, neither the price of consumers, but is determined of what consumers and producers choose to buy or to sell. It means also to understand that a producer will not accept to produce a good that could not be sold at a price higher than production cost and also that consumer will not accept to buy a good or a service if the price is higher than he or she is able and willing to pay; both consumers and producers are trying to buy or sell at prices that will give them advantages, but sometimes they should accept higher or lower prices if they want to buy or to sell. Consumers' and producers' interactions will force market to converge to an equilibrium in terms of prices and quantity demanded or supplied. That means to understand the price mechanism.

Economic actions have secondary effects. Thinking economically means to think at secondary effects of an action too. For example, rent control made houses more accessible for consumers, but less profitable for constructors and owners. The secondary effect of a decision to control rent would be a deficit of houses available. Or, increase taxes may increase government income, but, in the same time, may decrease motivation to work, save and invest. A smart person/decision maker will take into account secondary effects too.

Principles of economic way of thinking were considered a practical "guide" of economic analysis used to understand real daily life issues, including ones that apparently have nothing to do with economics.

3. Economic literacy in teachers' understanding

Teachers participating the project "Training of in-service high school teachers of economics and business" conducted in 2010-2013 in partnership by University Babeș-Bolyai from Cluj-Napoca, Bucharest University of Economic Studies, Al. I. Cuza University of Iasi and West University of Timisoara were asked, among others, to define an "economically literate student" as they understand economic literacy from the perspective of economic subjects they are teaching and to design a test of economic literacy to be used in the classroom. 172 teachers from 14 counties in Romania (Argeș, Brăila, Buzău, Călărași, Constanța, Dâmbovița, Giurgiu, Ialomița, Ilfov, Olt, Prahova, Teleorman, Vâlcea and Buharest, the capital city) have completed this task. They all were teachers of economics, applied economics, entrepreneurship education in theoretical high schools or business subjects such as accounting, trade and commerce, business communication,

management, marketing, and insurance in vocational and commercial high schools.

In teachers' understanding economic literacy implies, first of all, economic knowledge: basic economics and management or marketing concepts. They tend to consider the school curriculum as reference in identifying the minimum level of economic knowledge a person need. Economic concepts teachers included in their tests were: resources, price, wages, productivity, banks and credits, economic growth, economic functions of government. In addition, in some tests were included consumers', workers' or employers' rights and responsibilities, taxes, entrepreneurship and decision making.

Most of the teachers (more than 95%) considered that multiple choice tests is the adequate instrument to measure the students' level of economic knowledge and understanding. For each question were four choices and only one represented the correct answers. Few teachers developed other kind of tests: with completion questions, matching item questions, and true-false questions. Their option for multiple choice questions could be influenced by the fact that the TEL presented in the reference material they had was a multiple choice one. And it was the only one presented. More than this, discussions in face-to-face activities conducted to idea that the multiple choice test has many advantages in comparison with other assessment instruments and is has a large usage in online activities.

Only few tests developed by teachers demonstrated holistic vision on economic literacy. Most of them were focused on particular issues based on the economic knowledge identified as necessary in different moments of an adult life, mainly for the moment of integration on labor market. We believe that this, let's say, "limited vision" is explained by the fact that the time teachers had to develop the test was itself limited and teachers had also other tasks to complete and, as consequences they couldn't produce the best developed tests they wanted.

Tests of economic literacy developed by teachers did not target economic thinking skills of students. Actually, we identified only one concept that could be linked with economic thinking – the opportunity cost. But, this was not used to analyze and evaluate real economic situations; questions related to opportunity cost asked respondents to explain the concepts or to clarify its content.

Tests analysis conducted also to idea that teachers believe that economically literate students have positive attitudes towards work, understand the relationship between work and income as work reward and the need of investment in human capital. Economic literacy, in teachers understanding, is not an economic instruction instrument only, but implies also economic attitudes and behaviors development.

4. The real student and his or her economic knowledge

The differences between the ideal of an economically literate student (what should be) and the real student (what is) in the teachers' understanding are summarized below (Table 1):

Table 1 Ideal and real in students' economic literacy

The student economically literate	The real student
Understands economic concepts such as: productive resources, opportunity cost, specialization, productivity, market, competition, banks, interests, unemployment	Has a low level of economic knowledge
Can explain important economic concepts such as resources, opportunity cost, specialization, productivity, market, competition, banks, interest, or unemployment.	Does not have basic economic concepts
Knows what to do when the rights he or she has as consumer, employee, deponent, or investor are infringed.	Dos not know what to do when the rights he or she has as consumer, employee, deponent, or investor are infringed.
Understand and can operate with following economic and business concepts:	Understand and can operate with following economic and business concepts:
<ul style="list-style-type: none"> • Needs and wants 	<ul style="list-style-type: none"> • Needs and wants
<ul style="list-style-type: none"> • Price 	<ul style="list-style-type: none"> • Price
<ul style="list-style-type: none"> • Goods and services 	<ul style="list-style-type: none"> • Producer
<ul style="list-style-type: none"> • Producer 	Does not pay attention to:
<ul style="list-style-type: none"> • Label 	<ul style="list-style-type: none"> • Label
<ul style="list-style-type: none"> • Receipt 	<ul style="list-style-type: none"> • Receipt
<ul style="list-style-type: none"> • Consumer rights 	<ul style="list-style-type: none"> • Consumer rights
<ul style="list-style-type: none"> • Consumer responsibilities 	Has no clear idea about:
Knows how to choose a product based on information mentioned on the label	<ul style="list-style-type: none"> • His or her rights and how to protect them
Makes decision based on opportunity costs too.	<ul style="list-style-type: none"> • Difference between goods and services • Importance role of receipt
Understands market mechanism and relationship between supply, demand, and price.	
Understands financial instruments and services provided by banks	Can't make good decisions because of lack of information.
Understands the benefits of saving money.	Does not know the value of money and spend any money he or she got from parents buying different things.
Understands concepts of cost and profit.	Does not save money.
	Knows how to use a card.
	Has high expectation in respect with the income and job he or she will have.
	Is more likely to connect income with the needs and wants or consumer prices than to the work.

Source: Data collected by authors, 2011-2013

Interventions suggested by teachers in order to reduce the gap between the

real and ideal situation are in the limits of regular activities conducted in school:

- More class activities basic economic concepts oriented;
- Optional economic education/economics classes in the school based curriculum;
- Financial education programs conducted in schools;
- Simulated firms in more schools;
- Activities in economic laboratories;
- Consumers' rights oriented lessons.

Conclusion

Economic literacy became an issue for pre-university teachers too. Teaching to literate students economically is very different from teaching advanced economics. It implies, first of all, to identify economic knowledge and thinking skills necessary to a person to understand the economy and to act effectively. The gap between the real and ideal economically literate student in Romanian pre-university system increases the costs of individual economic actions and decreases efficiency at community and national level.

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