

ECONOMICS EDUCATION: CAN LIBERAL ARTS MAKE ECONOMICS MORE APPEALING?

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Abstract

Far better and more efficient teaching and understanding of economics, which predominantly encompasses human behaviors, is of the utmost importance. Both the correctness of personal financial decisions that individuals will make and the success of economic policies implemented and to be implemented at the macro level, require a thorough knowledge of economics and its fundamental rules. This study is an attempt to attract attention to the importance of utilizing literature, theatre, cinema, and humor, which are matters as everyday as economics, rather than employing classical presentation methods in economics education, in order to render economics more enjoyable, understandable, and appealing to college students.

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Introduction

One of the primary responsibilities and therefore a significant expenditure item of a social state, education is a long-term and expensive investment.

In this context, the economic dimension of education or, in other words, education economics is extensively covered in various studies (Sarı and Uğur, 2006; Parem and Russell, 2006; Vibeke, 2005). In fact, there are 19 million students and 900,000 educators in total from primary education schools up to higher education and the annual education budget accounts for 13.6% of the consolidated/centralized state budget in Turkey (MEB, 2008). Therefore, the economic aspects of education are frequently discussed and have an importance in Turkey and other developing countries.

In spite of this significance, economics education is rarely given the attention its importance merits and is not covered extensively enough. However, positive correlations have been pointed out even between economics education and economic growth (Grimse Ana Lee, 2000). It can be argued that those individuals who get economics education can behave more rationally in making choices in their own lives.

2. The Importance of Economics Education

Economics education can help individuals to act in line with cost-benefit analysis in the decision-making processes of their private daily lives, including work, finance and political issues (Stiller, 1983). According to Alan Greenspan, a basic economics education offered during primary and secondary school years will largely prevent young people from making wrong financial decisions that can adversely affect their later lives (Nysed, 2002).

It can be argued that such an evaluation at an individual level is likely to have positive economic results for the society. A comparative study based on regression analysis has been carried out among the colleges in the states of the USA with and without economics education for at least one semester. In this analysis covering the period between 1982-1997, a statistically positive and more significant relationship has been found between the growth rate in gross state product (GSP) and economics education in the states offering economics education in their colleges compared to those states without such an education program (Grimse Ana Lee, 2000).

It is pointed out that in countries like Japan and Korea, which struggled with recession during the 1990s, economics education based on the provision of basic economic knowledge played an important role in helping these countries to escape recession (Chin-Young, 2000). It is also argued that the economics education offered in the socialist countries equips individuals with an economic perspective and thinking, which played a significant role in the economic reform process of these countries (Shen and Shen, 1993; Shiller *et al.*, 1991).

When China entered into diplomatic contacts with the USA in 1979, the teaching of economics was totally Marxian and socialist and it contained neither contemporary

economic theories nor empirical analyses. Economics was treated as a philosophy rather than a science. There were no written materials in university libraries on any characteristic of the Chinese economy, and economics professors conducted no empirical research on China (Chow, 2000).

Moreover, even though lawyers represent a completely different discipline and professional group, those who have boosted their human capital with an economics education are shown to earn more compared to their peers who have not received such an education (Craft and Baker, 2003).

3. Teaching and Understanding Economics

In spite of this importance of economics, it is known that Thomas Carlyle¹ defines economics as a dismal science (Barber, 1967; Galbraith, 1977; Heilbroner, 1986 and Oser and Brue, 1988), voicing his reaction to Malthus' work "*An Essay on the Principle of Population*" (Malthus, 1798).

On the other hand, students sometimes regard economics, which encompasses unforeseen human behavior, as boring, uncertain, and difficult to understand compared to traditional positive sciences like physics, mathematics and biology, which are based on foreseeable natural laws.

At this point it would not be incorrect to assert that academicians in the field of economics frequently experience differences in opinion regarding economic theories and policies due to the nature of economics (Frey, Schneider, Pommerehne and Gilbert, 1984; Alston, Kearn and Vaughan, 1992a, 1992b) or that even when they come to an agreement on a certain issue, they fail to express this openly and strongly (Fuller and Geide-Stevenson, 2003), which reinforces the views above.

"If you put two economists in the same room, you get two opinions, unless one of them is Lord Keynes, in which case you get three opinions."

Winston Churchill

While it is a fact that only a few of the many students who get an economics education will eventually become professional economists, it should not be forgotten that all of these students will be using their economic knowledge throughout their lives (Klein, 1999).

Therefore, it is of the utmost importance to choose teaching methods in economics education that will make the topics more interesting, understandable, and attractive for students and that will ensure their active participation in the classes. Empirical studies on pedagogical techniques show that most academicians in the field of

1. Thomas Carlyle (1795-1881) Scottish satirical writer, essayist, and historian.

economics still mainly rely on classical presentation techniques of chalk and talk (Becker and Watts, 2001).

It is emphasized that certain new pedagogical techniques, which involve the active participation of students in experimental games, should replace these classical teaching techniques (Becker, 2000; Hazlett, 1999; Gremmen and Potters, 1997).

A very interesting, even unique experimental device can be considered for use in economics education at this stage.

3.1. *The Phillips Machine (MONIAC)*

Phillips had a deep interest in the Keynesian economy and he discovered obvious parallels between the configuration of the *IS-LM model* and the macro-stabilization matters focused on by its users and the *continuous time dynamic systems* and the *control problems* analyzed by electrical engineers. Phillips was an electrical engineer at the same time, which must have been a key factor in this insight (Laidler, 2001). Building upon his knowledge of hydrodynamics as well, Phillips built a pedagogic machine that enabled students to quickly and visually understand the complex relations, which may be difficult to grasp from time to time, between such several macroeconomic variables as exchange rates, interest rates, savings, investments, government expenditures, taxes, imports and exports.

Phillips published an article in 1950, in which he outlined his idea to design a mechanism called the “Phillips Machine” or “MONIAC”² (*Monetary National Income Automatic Computer*) as a mechanical tool and an economic model (Phillips, 1950).

The Phillips Machine was approximately 2 meters high and 1.2 meters wide and the circulation of money in an economy is symbolized on the machine via the colored *water* that passes through the translucent plastic pipes while the accumulation of water in a series of translucent tanks stand for money stocks in the same economy (Barr, 2000). The economic system is presented by Phillips as an engineering problem (Leeson 2000), which was much later called “*Hydraulic Keynesianism*” (Coddington, 1976).

Consistent with the variables above, the machine visually illustrates the following *Keynesian equilibrium condition* that economy students know very well:

$$Y = AE = C + I + G + (X - M)$$

2. The name of the machine called the MONIAC in the USA is derived from the words **MONEY**, **ENIAC** (Electronic Numerical Integrator and Computer), and **MANIAC** which symbolizes that it is an extraordinary, *crazy* thing (Lerner, 1952).

The name of the Phillips Machine was inspired from (Maniac → Moniac).

The figure below is a simplified drawing that portrays the mechanical functioning of the Phillips machine, which will be considered in this respect in this study.

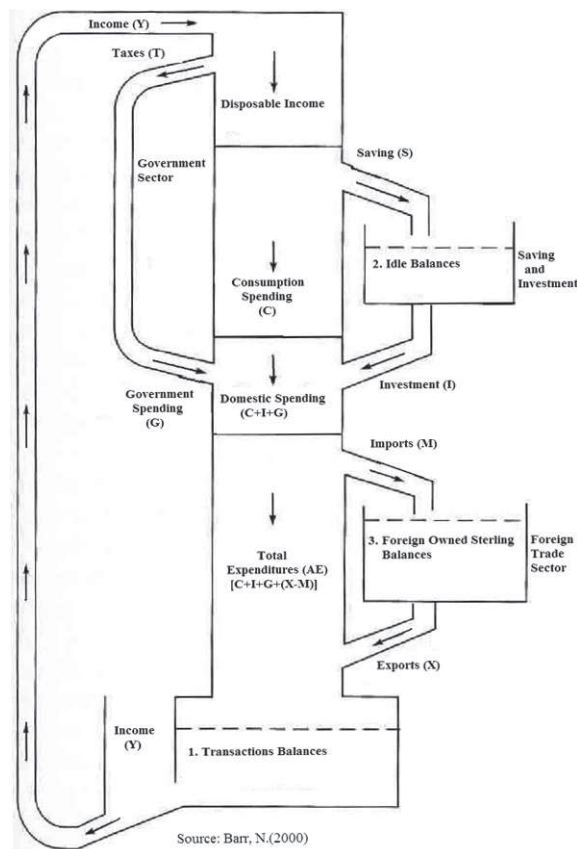


Chart:1: Simplified Version of the Phillips Machine

Moreover, academicians in the field of economics suggest the use of literature (Watts, 2002; Hartley, 2001; Watts and Smith, 1989), cinema (Leet and Houser; Mateer, 2004), music (Tinari and Khandke, 2000) and humor (Clotfelter, 1996) in economics courses to make the students more interested in these classes.

Academicians teaching economics can be more effective at explaining economic concepts and theories if they make use of literature and theatre works that reflect all aspects of our daily lives, just as economics, rather than filling the sessions with statistical and analytical tools that contain complex mathematical models and economic studies (Kish-Goodling, 1998).

4. Economics and Philosophy

Several philosophers have made analyses of the development and evolution of a variety of economic theories and thus contributed greatly to the science of economics and they can be considered as the under-laborers of economists (Little, 1995).

Aristotle has a specific importance among the first thinkers of the early ages, as he dealt exclusively with economic events. According to Aristotle, having personal belongings is pleasant and legitimate. Having your friends benefit from your possessions is a particular pleasure. The way to achieve this pleasure intersects with having private property. The famous philosopher used the concept of economics (oeconomics), which he limited to household management and obtaining the usage values required to make a living, for the first time between 384 - 322 BC (Finley, 1970). Another famous philosopher, Thomas Aquinas, outlined many basic concepts of today's modern economics a long time ago through his considerations on the requirement to bring about reasonable arrangements in terms of equality, fair prices, and fair wages as well as on the view that the changes in the value of money should be decided upon by the society, not the ruler (Blaug, 1991).

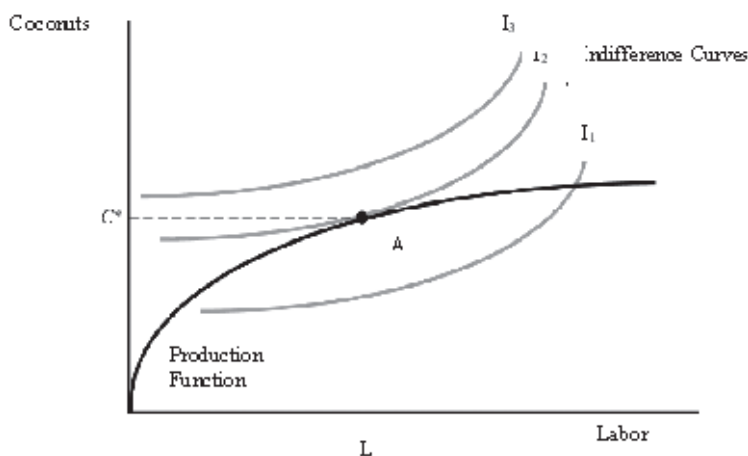
5. Economics and Literature & Theatre

The Wonderful Wizard of Oz by Frank Baum is often used as a pedagogical tool to teach economics. The characters and stories in the book cover the populist monetary expansionary policies at the end of the 19th century, which also coincides with heated debates on bimetallism. The book is able to present the topics in money, banking and economic history classes in a more understandable and enjoyable way (Rockoff, 1990).

It is also possible to evaluate the borrowing and lending relationships in the historical and philosophical perspective of the Middle Ages by studying the characters in *The Merchant of Venice* by Shakespeare, highlighting the element of "interest" in the modern capitalist economies of today (Kish-Goodling, 1998).

In the famous *Robinson Crusoe* by Defoe, we, the economists, come across the existence and applications of very significant economic concepts and theories along with various socio-psychological behavior and views of the characters in terms of the location of the setting, its characteristics, heroes and developments as the story unfolds.

Crusoe's optimal selection as shown in the chart below, which is also called the "Robinson Crusoe Economy," will help students beginning economics to understand the basic philosophy of economics easily and effectively. In this novel with a simple economic setting, Crusoe is a single producer and at the same time a consumer of only two products (*coconuts*—collected on the beach and *leisure*—time not spent collecting coconuts) and makes the optimal choice (Wooton, 2003).

Chart 2: Robinson Crusoe Economy

The whole life of Robinson Crusoe on the island as the main character of the novel is a kind of application of the *Life Cycle-Permanent Income Hypothesis* of Irving Fisher, while at the same time fulfilling the Keynesian open economy (other islands in this case) equilibrium $Y = AE = C + I + G + X$ with all of its parameters, which is well-known to students of economics (Hartley, 2001).

Apart from being a story like the ones mentioned above, *Guns, Germs, and Steel* by the biologist-physiologist Jared Diamond (Diamond, 2004) is a very interesting novel that ties the differences in the level of development between primitive societies/today's countries to the biological, geological and geographical characteristics of the natural environment inhabited by these societies. This book gives answers to questions involving the ultimate aim of economics and the fundamental issue and concept of growth-development/non-development with simple but equally impressive explanations and is likely to be very useful for students of economics.

It is also argued that good economic analyses are based on the assumption that human beings will act rationally, just as in classical detective novels. Based on this analogy, the leading characters created by two economists using the nickname Marshall Jevons in a series of three novels make use of economics and game theories to solve crimes (Elzinga and Breit, 2002).

In addition to being a very important and famous masterpiece, the play Hamlet features many everyday theories and practices of psychology, politics, and economics (MacCary, 1998).

The vital significance of the fundamental variables of various theories and practices of economics is demonstrated by the imagined absence of main characters from the aforementioned play.

Laidler, one of the pioneers of monetarist economics, argues that a monetary policy in which money (M) does not exist within the model would be like a production of Hamlet that lacks one of the main characters of the play — the Ghost (Laidler, 2003). Similarly, Minsky makes Keynes (without *uncertainty*), who made a considerable contribution to the concept of *uncertainty* that is influential on the behaviors of decision makers in economics, resemble the play Hamlet without the Prince, another main character, when this very concept is lacking (Minsky, 1975). The example of a Hamlet without the Prince is used by Lachmann, one of the pioneers of the Austrian School, in an investment theory without a capital theory (Lachmann, 1956), and by the Post-Keynesian Kregel as a Cambridge macroeconomics without money (Kregel, 1985).

6. Economics and Cinema

The movie, *A Beautiful Mind*, is probably the best way to explain the Nash equilibrium, which forms the fundamental concept of game theory and was developed by John Nash, a good mathematician who also had mental disorders (Dixit, 2005).

Modern Times, a classic movie by Charlie Chaplin produced in 1936, transforms the economic and psychological effects of industrial technology such as efficiency and scale economies from a tragedy to a comedy and provides important clues to the economic development of the world and especially of the USA (Cohen, 2004).

Similarly, the 1946 movie called *It's A Wonderful Life* shows how the financial system can collapse if all the depositors rush to withdraw their money from the banks (Leet and Houser, 2003). The Turkish comedy movie, *Banker Bilo*, which was produced in 1980, covers the financial problems caused by the banker rush on the bank experienced in the Turkish economy. Both of these films help us to watch-observe and comprehend the applications and results of money, banking, and monetary policies very easily (Orta, 2007).

The 1987 production *Wall Street* is also considered very useful for finance students to understand the concepts of the mixed economy, financial markets, public regulations, and asymmetrical information systems (Dyl, 1991 and Belden, 1992).

Similarly, *On the Waterfront*, the 1954 movie directed by Elia Kazan, covers workers' unions and corruption, while analyzing such concepts as capitalism and the working class. The 2005 documentary *Wal-Mart: The High Cost of Low Price*, directed by Robert Greenwald, strikingly portrays how Wal-Mart rejects unionization and, consequently, obtains high profits, illustrating the personal and social costs of these earnings (Darlington, 2009).

In another movie directed by Robert Zemeckis in 1994, *Forrest Gump* (Tom Hanks) enters the shrimping industry. But he has trouble finding shrimp and also the industry is a highly competitive industry. However, a hurricane destroys all the other shrimp boats, except Forrest's. Since Forrest has the only boat left, he gains a

temporary monopoly and catches all the shrimp (*Sources of Monopoly, Competition*) (Pfeiffer, 1997).

7. Economics and Humor

The educational use of humor goes all the way back to Babylonian times (Amoo *et al.* 2002). The educational use of humor - which strengthens the communication between the teacher and the student, makes the classes more interesting and fun and assists in the better understanding of topics and concepts - has been studied extensively (Aylor and Oppliger, 2003; White, 2001; Berk, 1996; Bryant *et al.*, 1980; Kaplan *et al.*, 1977).

It can also be very effective to make use of humor in economics education. The use of humor to explain certain concepts and theories in different fields of economics can be seen in various studies (Blinder, 1974; Christopher, 1980; Edi and Barbara, 1980; Dennis, 1982; Clotfelter, 1996).

There seems to be no better way than the anecdote below to illustrate the primary effect of money supply on inflation and economy, which has been frequently pointed out by Milton Friedman, who outlined the fundamental principles of monetarism in *Studies in the Quantity Theory of Money* he edited (Friedman, 1956).

“A student was taking the economics course given by Milton Friedman at the Chicago University and was so tired due to studying late on the previous night that he fell asleep during the class. Seeing this sleeping student, Friedman wanted to make a joke and knocked on his desk asking him to answer the question he had just asked the class. The student was shocked but became wide-awake and replied “I am sorry, Sir. I missed the question, but the answer is ‘to increase the money supply’”.

Anonymous

Another anecdote,

With simultaneous low inflation and low unemployment in the US persisting for some time, certain policy-makers at the Fed are beginning to think NAIRU stands for Nothing About Inflation (is) Related (to) Unemployment.

Chris Varvares 2002

8. Economics and Religion

In addition to economics, *religion* is another great constituting agent of human history (Marshall, 1920). It is certainly possible to accept sinners' performance of penance by proxy - paying someone to perform sacrifices on their behalf in the early

Christian Church (Mahoney, 1987) — as well as similar practices in Islam such as the *zakat* and *sadaqa*, which have been institutionalized over time, as the foundations of such concepts of today's modern economies as tax justice and wealth distribution (Eskicioğlu, 1989).

According to Weber, who arrives at the economics–religion relationship from a different perspective, the spirit of capitalism overlaps with that of Protestantism (Torun, 2002). In other words, the capitalist mentality is intrinsic in *Protestant ethics*.³ The most important virtue delivered to the economic life by the *Protestant ethics*, which considers successful economic activities and revenues a religious activity (Bodur, 1991), is advocating the awareness that regular and methodical work in one's profession is a sort of religious duty (Turkdogan, 1981).

9. Conclusion

The teaching and comprehension of economics, which is the leading branch of science that directs and shapes human life — in other words, economics education — is of the utmost importance.

The correctness of the financial decisions taken and to be taken by individuals and the success of macroeconomic policies depend largely on this. Therefore, apart from classical presentation techniques, it is important to adopt new methods that will make economics courses more enjoyable and understandable for students and encourage their active participation. In addition to several pedagogical techniques, introducing pieces of literature, theatre, cinema, humor and other liberal arts that are actually part of daily life, just as economics is, will prove very useful in economics education. Understanding and teaching economics through the use of such popular works, that have endured the passage of time and that are widely remembered, will be much easier, more effective, and enjoyable.

References

- Alston, R.M., Kearn, J.R. and Vaughan, M.B.(1992a). "Is There a Consensus Among Economists in The 1990's", *The American Economic Review*, 82(2), 203-209.
- Alston, R.M., Kearn, J.R. and Vaughan, M.B.(1992b). Consensus Among Economists: The Role of Employment Affiliation. Unpublished Paper. Presented at the Empirical Studies on Economic Consensus Session, Western Economic Association, San Francisco, Calif., July 1992.
- Amoo, T., Friedman, L.W., and Friedman, H.H.2002. "Using Humor in the Introductory Statistics Course", *Journal of Statistics Education*, 10(3).

3. Weber, M. 1904. *The Protestant Ethic and the Spirit of Capitalism*, Translated by Peter Baehr and Gordon C. Wells in 2002, Penguin Books, USA.

- Aylor, B., and Oppliger, P.2003. "Out-of-class Communication and Student Perceptions of Instructor Humor Orientation and Socio-communicative Style", *Communication Education*, 52(2), 122- 134.
- Barber, W. 1967. *A History of Economic Thought*, Harmondsworth: Penguin Books
- Barr, N.2000. "Developments Between Phillips and the London School of Economics," in Robert Leeson, eds., *A. W. H. Phillips: Collected Works in Contemporary Perspective*. Chapter 10, Cambridge: Cambridge University Pres.
- Becker, W.E. 2000. "Teaching Economics in the 21st Century", *Journal of Economic Perspectives*, 14(1), 109-119.
- Becker, W.E., and Michael W. 2001. "Teaching Methods in U.S. Undergraduate Economics Courses", *Journal of Economic Education* 32(3), 269-279.
- Belden, S. 1992. "A Comment on Wall Street: A Case in Ethics", *Financial Practice & Education* 2(1), 53-54.
- Berk, R.A. 1996. "Student Ratings of 10 Strategies For Using Humor in College Teaching", *Journal of Excellence in College Teaching*, 7(3), 71-92.
- Blaug, M. 1991. *St.Thomas Aquinas, 1225-74 (Pioneers in Economics)*, Edward Elgar Publishing Ltd.
- Blinder, A.S. 1974. "The Economics of Brushing Teeth", *Journal of Political Economy*, 82(4), 887-891.
- Bodur, H.E. 1991. Modern Kapitalizm'in Doğmasında Dinin Rolü", *Atatürk University Theology Faculty Journal, Number:10*, 80-108, Erzurum.
- Bryant, J., Comisky, P.W., Crane, J. S., and Zillmann, D. 1980. "Relationship Between College Teachers' Use of Humor in the Classroom and Students' Evaluations of Their Teachers", *Journal of Educational Psychology*, 72(4), 511-519.
- Chin-Young, K. 2000. "Comparative Study on Economic Education: Korean and Japanese Schools", *NIRA (National Institute for Research Advancement) Review*, Spring 7(2), 41-43.
- Clotfelter, C. P.1996. *On The Third Hand: Humor in The Dismal Science*, An Anthology, Ann Arbor, Michigan: University of Michigan Press.
- Coddington, A.1976. "Keynesian Economics: the Search for First Principles." *Journal of Economic Literature*, 14(4), pp. 1258-1273.
- Cohen, D.2004. *Our Modern Times: The New Nature of Capitalism in The Information Age*, Cambridge, Mass. ; London: MIT.
- Chow, G.2000. The Teaching of Modern Economics in China, *Comparative Economic Studies* (2000) 42, 51-60.
- Craft, R.K. and Baker, J.G. 2003. "Do Economists Make Better Lawyers? Undergraduate Degree Fields and Lawyer Earnings", *Journal of Economic Education*, 34(3), 263-281.
- Christopher, U.L. 1980. "The Birth of Stagflation: A Fable", *Journal of Political Economy*, 88(6), 1255-1259.
- Darlington,R. 2009.Roger darlington's World. <http://www.rogerdarlington.co.uk/index.shtml>
- Dennis, S. 1982. "Macroeconomic Policy and the Optimal Destruction of Vampires", *Journal of Political Economy*, 90(3), 647-655.
- Diamond, J. 2004. *Tüfek, Mikrop ve Çelik*, Tübitak Yayınları.

- Dixit, A. 2005. "Restoring Fun to Game Theory", *Journal of Economic Education*, 36(3), 205-219.
- Dyl, E.A. 1991. "Wall Street: A Case in Ethics", *Financial Practice & Education*, 1(1), 49-51.
- Edi, K. ve Barbara, S.1980. "Tales of Horror From Ivory Towers", *Journal of Political Economy*, 88(1), 210-212.
- Elzinga, K.G and Breit,W.2002. "Economics As Detective Fiction", *Journal of Economic Education*, 33(4), 367-376.
- Eskicioğlu, O.1989. "Modern Vergi Anlayışı ve Zekat." D.E.Ü. *İlahiyat Fakültesi Dergisi*, Sayı: V, İzmir, Turkey
- Friedman, M.1976. *Studies in The Quantity Theory of Money*, Chicago: University of Chicago Press.
- Galbraith, J. 1977. *The Age of Uncertainty*, Boston: Houghton Mifflin.
- Gremmen, H.J.F.M., ve Potters, J.J.M. 1997. "Assessing The Efficacy of Gaming in Economics Education", *Journal of Economic Education*, 28(4), 291-303.
- Finley,M.1970. *Aristotle and Economic Analysis*, The Past and Present Society.
- Frey, B.S., Pommerehne, W.W., Schneider; F. and Gilbert, G. 1984 "Consensus and Dissension Among Economists: An Empirical Inquiry", *The American Economic Review*, 74 (5): 986-994.
- Fuller, D. and Stevenson, D.G. 2003. "Consensus Among Economists: Revisited", *Journal of Economic Education*, 34(4), 369-387.
- Grimes, W.P. and Lee, O.D. 2000. "Economic Education and Economic Growth", *Atlantic Economic Journal*, 28(4), 490.
- Hartley, J.E. 2001. "The Great Books and Economics", *Journal of Economic Education*, Volume 31(2), 147-159.
- Hazlett, D. 1999. *Economic Experiments in the Classroom*, Reading, MA: Addison Wesley Longman.
- Heilbroner, R. 1986. *The Worldly Philosophers*, Sixth edition. London: Penguin Books.
- Kaplan, R.M., and Pascoe, G.C. 1977. "Humorous Lectures and Humorous Examples: Some Effects Upon Comprehension and Retention", *Journal of Educational Psychology*, 69(1), 61-65.
- Kish-Goodling, D.M. 1998. "Using The Merchant of Venice in Teaching Monetary Economics", *Journal of Economic Education* 29 (4), 330-39.
- Klein, D. 1999. *What Do Economists Contribute?*, New York: New York University. Press.
- Kregel, J. 1985. "Hamlet Without the Prince: Cambridge Macroeconomics Without Money", *American Economic Review*, 75(2), 133-139.
- Laidler, D. 2001. "Phillips in Retrospect." UWO Department of Economics Working Papers: Number: 20013.
- Laidler, D. 2003. *Monetary Policy without Money: Hamlet without the Ghost*, UWO Department of Economics Working Papers
- Lachmann, L.M. (1956), *Capital and Its Structure*, Bell & Sons, London
- Leeson, R.2000. "A.W.H. Phillips M.B.E. (Military Division)." in Robert Leeson, eds., *A.W.H. Phillips: Collected Works in Contemporary Perspective*, Chapter 1, Cambridge: Cambridge University Pres.

- Leet, D. and Scott H. 2003. "Economics Goes to Hollywood: Using Classic Films and Documentaries to Create and Undergraduate Economics Course", *Journal of Economic Education* 34(4), 326-332.
- Lerner, P.A. 1952. "The Moniac: Economics in Thirty Fascinating Minutes". *Fortune*, March, pp. 101.
- Little, C.D. 1995., ed. *On The Reliability of Economic Models: Essays in the Philosophy of Economics*. Boston: Kluwer Academic Publishers.
- MacCary, T. 1998. *Hamlet: A Guide to the Play*, Greenwood Press.
- Mateer, G.D. 2004. *Economics in The Movies*. Mason: Thomson/South-Western.
- Malthus, T.R. 1798. *An Essay on The Principle of Population*. First edition. Volume 1 of The Works of Thomas Robert Malthus. Edited by E.A. Wrigley and D. Souden. London: W. Pickering.
- Marshall, A. 1997., ed. *Principle of Economics*. 1920, Prometheus Books, Originally Published: 8th ed., London: Macmillan.
- Mahoney, J. 1987. ed. *The Making of Moral Theology*. Oxford: Clarendon Pres.
- Minsky, H.M., 1975, *John Maynard Keynes*, Columbia University Press, New York.
- Nysed. 2002. Economics, The Enterprise System, and Finance, The State Education Department, The University of the State of New York, February 2002, http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/1b/02/ac.pdf
- MEB.2008. (Ministry of Education). *The Statistics of Ministry of Education, 2007-2008*, Ankara.
- Orta, N. 2007. "The Social Fact-Events Faced in Turkey and Its impacts to Turkish Cinema (1980-2004)", *Edebiyat Dergisi*, Fen-Edebiyat Fakültesi, 18, 125-143 (In Turkish).
- Oser, J., and S. Brue. 1988. *The Evolution of Economic Thought*, Fourth edition. San Diego: Harcourt Brace Jovanovich.
- Pares, K.N. and Russell, S.2006. "Higher Education, Real Income and Real Investment in China: Evidence From Granger Causality Tests", *Education Economics*, Volume 14, Number 1, Number 1/March 2006, 107-125(19).
- Pfeiffer, G. 1997. *Forrest Gump-Accountant: A Study of Accounting in the Motion Picture Industry*, *Journal of Accounting Education*, 15(3), 319-344.
- Phillips, A.W. 1950. "Mechanical Models in Economic Dynamics." *Economica*, 17(67), pp. 283-305.
- Rockoff, H. 1990. "The Wizard of Oz As A Monetary Allegory", *Journal of Political Economy*, 98 (4), 739-60.
- Sari, R. And Soytaş, U. 2006. "Income and Education in Turkey: A Multivariate Analysis", *Education Economics*, Volume 14, Number 2, June 2006, 181-196.
- Shen, R. and Shen, T.Y. 1993. "Economic Thinking in China: Economic Knowledge and Attitudes of High School Students", *Journal of Economic Education*, 24(1), 70-84.
- Shiller, R.M., Boycko, M. and Korobov, V. 1991. "Popular Attitudes Toward Free Markets: The Soviet Union and The United States Compared", *American Economic Review*, 81(3), 385-400.
- Stigler, G.J. 1983. "The Case, If Any, For Economic Literacy", *Journal of Economic Education*, Summer 1983, 14(3), 60-66.
- Tinari, F.D., and Khandke, K. 2000. "From Rhythm and Blues to Broadway: Using Music to Teach Economics", *Journal of Economic Education* 31(3), 253-70.

- Torun, I.2002. Kapitalizmin Zorunlu Şartı “Protestan Ahlak”, *Cumhuriyet University. İktisadi ve İdari Bilimler Dergisi*, 3(2), 89-98, Sivas.
- Türkdogan, O. 1981. *Endüstri Sosyolojisi, Türkiye'nin Endüstrileşmesi: Dün-Bugün-Yarın*, Töre Devlet Publishing House, Ankara.
- Vibeke, O. 2005. “The Economic Burden of Student Loan Repayment in Norway”, *Education Economics*, Volume 13, Number 4, December 2005, 427-447.
- Watts, M. 2002. “How Economists Use Literature and Drama”, *Journal of Economic Education* 33(4), 377-386.
- Watts, M., and R.F. Smith. 1989. “Economics in Literature and Drama”, *Journal of Economic Education*, 20(3), 291-307.
- Weber, M. 1904. *The Protestant Ethic and the Spirit of Capitalism*, Translated by Peter Baehr and Gordon C. Wells in 2002, Penguin Books, USA.
- White, G.W. 2001. “Teachers’ Report of How They Used Humor With Students’ Perceived Use of Such Humor”, *Education*, 122(2), 337- 347.
- Wooton, I. 2003. Production, Lecture 12, University of Strathclyde, Glasgow, <http://www.economics.strath.ac.uk/ian/Teaching/PricesandMarkets/Lecture%20Notes/Lecture%2012%20Notes.pdf>