

Improving Economics and Financial Literacy and Education: An Overview from a Teacher's Perspective

Roberta Schroder and Dolore Bushati*

ABSTRACT

The goal of and need for improving economic and financial literacy in the United States is widely documented. Government and educational systems support such initiatives as state curriculum standards and teacher continuing education. This paper considers the availability and usefulness of economics and financial resources from a teacher's perspective. Three main questions are addressed. What are the main sources of pedagogy for K – 12th grade teachers? How are resources structured and connected to standards and curriculum, and how do they lead to cumulative and consistent learning? How do resources help teachers lacking a background in economics and/or finance?

INTRODUCTION

The goal of and need for improving economic and financial literacy in the United States is widely documented. Although a broad range of educational resources are available to both adults and children, the path to economic and financial literacy includes, and can even begin with, classroom instruction. This paper examines the accessibility, organization and effectiveness of resources available to educators in the delivery of economics and personal finance education at the primary, intermediate and secondary levels in the United States. Since the delivery of course content is mainly the responsibility of the classroom teacher, this paper evaluates these issues from a classroom teacher's perspective. That approach allows for a greater understanding of how educational content is delivered, which methods have the most potential to result in effective outcomes, and how literacy outcomes for students might be improved.

Both federal and state education departments include programs and curriculum standards in economics and personal finance at the primary, intermediate and secondary levels. This suggests an awareness of the benefit of a population educated in economics and personal finance and the need to begin that education at an early age. State-mandated core curricula as well as state and federal incentives offer the necessary structure, but there is little evidence that economic and financial literacy is improved merely by having that structure in place. The Council on Economic Education's most recent summary report, the *Survey of the States*, shows that in 2011 all 50 states included education standards in economics and 46 states included personal finance standards at the high school level.

In some states, economics and personal finance standards are included at every grade level. Based on cumulative learning standards, an identified set of core concepts is introduced each year, which allows for teaching and learning to develop over time. Standard core concepts comprise the structural base used

* Department of Economics and Finance, Nassau Community College

by teachers to develop curriculum and course content. The means by which teachers find and access resources used to develop classroom pedagogy is an essential link between the state mandates and student literacy. Hence, the key to economic and financial literacy may lie in the hands of grade level teachers and their ability to access effective teaching resources and methodology.

This paper presents an analysis of the availability, access, and use of educational materials delivered by a representative group of institutional resource centers to K – 12th grade teachers. It discusses how using these resources might lead to cumulative and consistent learning. The basic format and structure of available resources and how these materials help teachers connect pedagogy to curriculum development and state standards is also considered. In addition, closing teacher literacy gaps is a critical and necessary step leading to economic and personal financial literacy for students.

Background

Research in the areas of economic and financial literacy generally stems from three main sources: academic, government, and nonprofit. Substantial interest in this area is found prior to 1980, but awareness of the critical nature and need for improved literacy showed a marked increase since the mid-1990s. In 1994, the National Council for the Social Studies, NCSS, published the first set of national standards which was, and continues to be, the framework for “professional deliberation and planning about what should occur in a social studies program in grades pre-K – 12”.² The Council on Economic Education, CEE, first published the *Voluntary National Content Standards in Economics* in 1997, which was revised in 2010. Both versions included twenty standards with benchmarks and grade level recommendations. The NCSS and the CEE standards were meant to present fundamental and essential principles that all students should learn. As stated by the CEE, “Each standard is an essential principle of economics that an economically literate student should know and a statement of what the student should be able to do with that knowledge at grades 4, 8, and upon graduating from high school.”³

Research shows the individual and social benefits of a financially literate population to include improved savings rates, higher wealth accumulation, and more long-term financial security. Further research supports education as a key to these benefits. Bernheim, Garrett, and Maki (2001) showed that individuals who were exposed to financial education in high school had higher savings later in life.⁴ Danes, Huddleston-Casas, and Boyce (1999)⁵ and Gutter, Copur, and Garrison (2010)⁶ supported the view that financial literacy and education can improve savings behavior, reduce maximum credit card debt and debt payment.

Attention is also paid to financial education through government and consumer advocacy initiatives. The Fair and Accurate Credit Transactions Act of 2003 established a Financial Literacy and Education Commission, FLEC, which was charged with the establishment of a national financial education website and hotline, and a national strategy on financial education. Among the key priorities of the *Starting Early* initiative in 2012 were “Preparing youth to have a basic understanding of financial transactions, and to make informed decisions about paying for post-secondary education “The intent was to develop a

comprehensive database that might be used “to evaluate the relative effectiveness of the various components of these programs for improving understanding of key personal finance concepts.” and “This data could then be used to examine how financial literacy and financial education relate to future financial behavior and financial well-being.”⁷ This suggests that there is awareness of the need for improvements in both research and data collection regarding successful educational methods and pedagogy.

The National Center for Education Statistics, NCES, housed within the U.S. Department of Education and the Institute of Education Sciences, published a national assessment of economic literacy, which it updated in 2012. Among the key findings was that “Economics scores increased for some lower performing student groups, even though the overall average score for twelfth-graders did not change significantly.”⁸ In addition, the results of the 2012 National Assessment of Educational Progress, NAEP, showed no significant change in comparison with the 2006 NAEP. Although low performing students showed some progress, only 42 percent of students performed at or above the proficiency level.⁹

The correlation between teacher education and student literacy outcomes is also a critical component. Teachers are the direct link to students and their educational experience. Research supports that positive influence of teacher education on student outcomes. Formative research by Allgood and Walstad (1999) studying the longitudinal effects of economic education on teachers and their students found that economic competency was improved by 22 percent for the teachers who participated in the program and was positively correlated with an increase in their students’ economics scores of TEL.¹⁰

Methods and Discussion

The evidence presented above supports the need for and benefits of improvements in economics and financial literacy. In addition, the inclusion of core academic standards in all 50 states for economics and in 46 states for personal finance suggests a strong belief that early educational intervention is needed to achieve these goals. Therefore, it is imperative to understand how teachers identify, access, and use educational resources in curriculum development. This paper explores the source, type, and structure of educational materials and resources that K – 12th grade teachers have readily available to them. From a teacher’s perspective, being able to identify the principle components needed to teach economics and personal finance would increase the likelihood that this material would actually be incorporated into lessons plans. It would not only satisfy the state mandates but offer a greater chance of cumulative learning throughout an individual student’s career.

In order to identify teaching materials used to develop curriculum and pedagogy, we need to discuss how educators initially identify and access the resource centers that deliver them. Educational resources are delivered by a wide range of primary sources including government offices/departments, nonprofit organizations and proprietary institutions/corporations. Teachers identify resource centers using such mechanisms as continuing education, direct communication with other educators, department meetings, conferences, and educational web resources.

Resource Centers

To assess the effectiveness of methods used by teachers, this paper focuses on five widely accepted resource centers. All five are considered substantial, if not essential, in the delivery of educational resources for either economics education, finance education or both. In addition, all five have comprehensive websites that can be used by teachers for curriculum development. It should be noted that a wide variety and number of institutions/organizations are accessible, reliable, and useful to educators. The resource centers discussed here indicate relative size in the field but this choice set does not imply that others centers are less useful or significant.

The five resource centers are the U.S. Department of the Treasury (www.treasury.gov), the Federal Reserve System (www.federalreserveeducation.org), the Council on Economic Education (www.councilforeconed.org), Jump\$tart (www.jumpstart.org), and TheMint (www.themint.org).¹¹ The first two are government based, the third and fourth are nonprofit organizations and the last is an affiliate of a private corporation. The choice to include these five resource centers was based on size, influence in the educational community, and to offer a sample of the full range of resource categories (i.e., government, nonprofit, private).

The following assumptions apply:

1. Two browsers were used: Internet Explorer and Mozilla Firefox
2. Two search engines were used: Google (Explorer) and Yahoo (Mozilla Firefox)
3. A lesson plan was considered complete if it included a lesson objective, explanation of terms, description of lesson flow and related class materials
4. A format was consistent if the structure of the lesson plan followed a set pattern

Based on these assumptions, the following three tables show the comparison between the five resource centers for each of the three criteria.

Table1: Ease of Access

Institution/ Indicator	Navigating primary website	Resource Type	Resource Type	Resource Type	Online support services for educational resources	Finding Source in Search Engine ¹² .
		Online	Hardcopy Text/Book/ Materials	CD/DVD		
U.S. Treasury	Moderate	Yes	Yes	Yes	No	No
Federal Reserve	Moderate	Yes	Yes	Yes	No	Yes
Council for Economic Education	Moderate	Yes	Yes	Yes	Yes	Yes
Jump\$tart	Moderate	Yes	Yes	Yes	Yes	Yes
TheMint	Easy	Yes	No	No	No	No

Table 2: Organization and Consistency

Institution/ Indicator	Complete lesson plans	Links to State (S) and/or National (N) Standards	Consistent Format	Economics (E) and/or Financial Resources (F)	Resources directed toward user groups ¹³ .
U.S. Treasury	No	No	No	F	No
Federal Reserve	Yes	No	Yes	E, F	Yes
Council for Economic Education	Yes	No-State Yes- National	Yes	E,F	Yes
Jump\$tart	Yes	No-State Yes- National	Yes	F	Yes
The Mint	Yes	No	No	E, F	Yes

Table 3: Academic Support for Teachers

Institution/ Indicator	Educational Settings Online courses, Classes, Workshops	Educational Settings On-site courses, Classes, Workshops, Conferences	Educational Settings Other continuing education	Frequency of Offerings	Clear Grade Level Differentiation
U.S. Treasury	No	No	No	NA	No
Federal Reserve	No	Yes (Tours)	No	Frequent	Yes
Council for Economic Education	Yes	Yes	Yes	Frequent	Yes
Jump\$tart	Yes	Yes	No	Frequent	Yes
The Mint	No	No	No	NA	No

Summary of Results

The range of resources available to K – 12th grade teachers in the areas of economics and personal finance education is large and varied. The question remains, are these resources delivered and/or received in such a way as to establish effective connections with educators that will lead to curriculum development and improvements in economics and financial literacy?

We believe that our results show that the basic educational tools available to K – 12th grade teachers are sufficient to achieve these goals as they apply to accessibility, range, variety, and reliability. There are substantial amounts of web resources that are available, downloadable, grade-level, and linked to identified concept areas and national standards. However, only two variables in which all five resource centers showed complete compliance. Both variables were *Ease of Access* measures. All five centers offered substantive online resources and were easy to navigate. It suggests that, once identified, teachers might learn to depend on these centers more than others.

With regard to source type identification, we see that the two nonprofit centers and the Federal Reserve were consistently identified in the keyword search. The U.S. Treasury and the TheMint were not.

A general keyword search might not lead educators toward their sites and useful resources from less prominent institutions or organizations might be neglected.

The government and nonprofit resource centers offer a number of educational resources in a wide variety of formats including webpages, links, and hardcopy materials (i.e. books, printed materials, CDs and DVDs). In addition to web access, some of the materials may be bulk ordered for the classroom. For example, the U.S. Treasury offers a number of posters and publications that can be used in conjunction with the lesson plans posted on the site.

Table 2 shows that there is little uniformity in the organizational structure of educational materials offered by each resource center. Generally, we would expect sources taking a serious view toward education to necessarily offer complete lesson plans to the educators. In all but one, that is the case. The lesson plans that are presented on the Treasury site are not complete, offer inconsistent formatting, have no links to either state or national standards, and are not differentiated by grade level. Just the opposite is true for the Federal Reserve system. Every Federal Reserve district offers a set of educational resources and the Fed system as a whole maintains a very useful and coordinated site linking the resources of each district bank. It also offers links to other resource centers such as the Council for Economic Education.

The nonprofit resource centers offer the most consistently organized set of resources. One main difference between the Council for Economic Education and Jump\$start is that the former includes both economics and financial education and the latter focuses on financial education. Beyond that, both do a good job of organizing and presenting a full range of materials for teachers of all grade levels. TheMint, supported by private sources, also delivers a solid set of resources but does not include standards links. In addition, the educational resources are presented in a variety of formats, which might make it more difficult for teachers to use in curriculum development. It does offer materials in both economics and personal finance.

Table 3 offers the most significant results related to establishing a long-term educational path toward economic and financial literacy. Learning and retention of the material will improve when students are exposed to the core principles early, with more consistency, and with cumulative reinforcement. The results show that there is only one resource center, the Council for Economic Education, offering a full range of academic resources for teachers. In addition, returning to the results presented in Table 1, only the CEE and Jump\$start (both the nonprofit centers) offer teachers online support.

Some critical questions need to be raised in the context of these results. If a teacher is not literate, is it likely that s/he will seek out additional academic support in order to satisfy the state standards? Rather than teach an unfamiliar subject area, will teachers choose to minimize or avoid core concepts in the curriculum? If we perceive a need for more support, where might teachers get the knowledge base that they need?

Concluding Remarks

The need for improved literacy in economics and personal finance is clear and the benefits are essential to the individual, the community and the nation. Our results show that there are a number of substantive and reliable resources available to the educational community as a whole. A large number of sources offer a wide variety of materials to the classroom teacher at all levels and access to these materials is easy to locate and use. Complete lesson plans for topics in both economics and personal finance are available, reliable, and grade-level identified.

Improvements in a number of key areas can be made. In particular, communication and support for educators is lacking. There are a plethora of online and hard copy resources, but few sources offer help lines, help-desk services or direct contact. Teachers without answers to critical questions that arise as they develop lesson plans might consider dropping the lesson from the curriculum entirely or may teach the principles incompletely or incorrectly.

As important, there is little academic support for the teachers themselves. Although the nonprofit resource centers offer continuing education options to the teaching community, there is little consistency in access statewide or nationally. This could result in gaps in delivery and literacy outcomes.

Teaching classroom teachers is quite different from teaching college students working toward education degrees. Mandating a college level economics and/or personal finance course for all education majors would help, but adding this requirement is neither realistic nor practical in the current educational environment. Therefore, programs that serve as outreach to the teachers themselves might be the best way to reinforce this material and, as an extension, increase the likelihood of successful improvements in literacy.

This study identifies the need for more academic support services for teachers, especially for teachers at the lower grade levels. We recommend that the state education departments develop connections between higher education institutions and school districts to facilitate teacher education and outreach.

Further, although the vast majority of states include standards in both economics and finance, they have not developed workable and/or coordinated evaluation or assessment plans for the lower grade levels. Evaluation methods are generally applied at the high school level and mostly in 12th grade. Only 16 states required some evaluation of literacy in economics and 5 states required evaluation in personal finance for the lower grades. A well-defined evaluation and/or assessment plan for lower grade levels would help to ensure that students achieve a stated degree of competency at an earlier age and this would allow secondary teachers to move forward with more advanced concepts and skills.

The evidence indicates that a full range of resources are available to K – 12th grade teachers in the areas of economics and personal finance education. However, the tools needed to help teachers link those resources to the course curriculum using consistent and cumulative methodology is not yet evident. We believe the next step is to strengthen those mechanisms by improving communication and teacher-

education. We all see the benefits of economics and financial literacy. Strengthening the links that “teach the teachers” is the necessary next step on the path.

ENDNOTES

1. Council for Economic Education, Survey of the States, 2011, <http://www.councilforeconed.org/wp/wp-content/uploads/2011/11/2011-Survey-of-the-States.pdf>,
2. National Council on Social Studies, National Curriculum Standards on Social Studies: Introduction, <http://www.socialstudies.org/standards/introduction>
3. Voluntary National Content Standards in Economics, 2nd Edition. Council for Economic Education <http://www.councilforeconed.org/wp/wp-content/uploads/2012/03/voluntary-national-content-standards-2010.pdf>
4. See Bernheim, Garrett, and Maki, “[Education and saving: The long-term effects of high school financial curriculum mandates](#)”, 2001
5. See Danes, Huddleston-Casas, and Boyce, “Financial planning curriculum for teens: Impact evaluation”,(1999)
6. See Gutter, Copur, and Garrison, “Financial Capabilities of College Students from States with Varying Financial Education Policies”, (2010)
7. U.S. Treasury, Financial Literacy and Education Commission, *Starting Early for Financial Success*, May 2013, <http://www.treasury.gov/connect/blog/Pages/flec-starting.aspx>
8. [National Center for Education Statistics, The Nation’s Report Card: 2012](#), <http://nces.ed.gov/nationsreportcard/pubs/main2012/2013453.aspx>
9. [National Center for Education Statistics, The Nation’s Report Card: 2012](#), <http://nces.ed.gov/nationsreportcard/subject/publications/main2012/pdf/2013453.pdf>
10. Allgood and Walstad, “The longitudinal effects of economic education on teachers and their students”, 1999.
11. TheMint, www.themint.org, is an online web resource that is “committed to guiding young people and their families to be money smart and financially fit. “. It is affiliated with Northwestern Mutual Life Insurance Company.
12. “Finding Source in the Search Engine” means the listing was in the first two pages when the keywords “financial and economic education for teachers” was used.
13. The three user groups were parents, students and teachers &/or administrators.

REFERENCES

- Allgood, S. & Walstad, B.W.,(Spring 1999). The longitudinal effects of economic education on teachers and their students. *The Journal of Economic Education* 30(2), 99-111.
- Bernheim, B. Douglas & Garrett, Daniel M. & Maki, Dean M., 2001. "Education and saving: The long-term effects of high school financial curriculum mandates". *Journal of Public Economics*, 80(3), 435-465.

- Bushati, D. (2010). Economics understanding of Albanian high school students: factors related to achievement as measured by tests scores on the test of economic literacy. (Doctoral dissertation, Graduate School of the University of Kansas, 2010)
- Council for Economic Education, Survey of the States, 2011, Retrieved on August 10, 2013, from <http://www.councilforeconed.org/wp/wp-content/uploads/2011/11/2011-Survey-of-the-States.pdf>
- Danes, S. M., Huddleston-Cases, C., & Boyce, L. (1999). Financial planning curriculum for teens: Impact evaluation. *Financial Counseling and Planning Education*, 10 (1), 25-37
- Gutter, M., Copur, Z., and Garrison, S. (2010). Financial Capabilities of College Students from States with Varying Financial Education Policies. Denver, CO: National Endowment for Financial Education.
- Lusardi, A., Mitchell, S.O., & Curto, V. (September 2009). Financial Literacy among the Young: Evidence and Implications for Consumer Policy. *NBER Working Paper No. 15352* Retrieved on August 20, 2013, from <http://www.nber.org/papers/w15352>
- National Council on Social Studies, National Curriculum Standards on Social Studies: Introduction. Retrieved on August 10, 2013, from <http://www.socialstudies.org/standards/introduction>
- The Nation Report Card: Economics Report 2012 Retrieved on August 17, 2013, from <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2013453>
- The Mint. Retrieved on August 17, 2013, from www.themint.org
- Voluntary National Content Standards in Economics, 2nd Edition. Council for Economic Education <http://www.councilforeconed.org/wp/wp-content/uploads/2012/03/voluntary-national-content-standards-2010.pdf>
- U.S. Treasury, Financial Literacy and Education Commission, *Starting Early for Financial Success*, May 2013. Retrieved on August 10, 2013, from <http://www.treasury.gov/resource-center/financial-education/Documents/Starting%20Early%20Research%20Priorities%20May%202013.pdf>
- Walstad, W. B., & Soper, J. C.,(1989). "What is high school economics? Factors contributing to student achievement and attitudes." *The Journal of Economic Education* 20 (1), 23-37