

Personal finance literacy – formal preparation prior to college, what is sought in the university-level course, and student performance

Charles Corcoran
University of Wisconsin – River Falls

ABSTRACT

A review of the literature finds that a positive relationship between adolescent financial literacy and successful adult financial practices. At the university level, students bring a variety of experiences to the Personal Finance course, although most do have an overarching objective of attaining specific skills in one or more money management subjects. Students ranked the relative importance of topical areas in the Personal Finance course, and then demonstrated proficiency through periodic quizzes. The relationship between topical importance and subsequent performance is found to be weak, suggesting a need to be more attentive to student needs in order to achieve greater success in their mastery.

Keywords: financial literacy, financial education, personal finance, retirement planning, Pearson correlation coefficient.

Background

Attaining financial literacy has become ever more urgent in recent years. The 2009 National Foundation for Credit Counseling (NFCC) Financial Literacy Survey noted that 41% of adults living in the U. S. graded themselves as “C” or lower on their personal finance knowledge (National Foundation, 2009). Consumer transactions have become more complex, and less understood, in recent years. Buying services such as insurance and investment products, as well as the purchase of goods such as homes and automobiles, has become increasingly complicated. This is only exacerbated by the “sales” nature of most transaction. In most circumstances, the salesperson is earning commission or bonus income from the transaction. There is a vested interest to “close the deal.” What may give the appearance of a fiduciary relationship, is, in fact, but a arms-length transaction with no legal obligation to serve the sole interests of the buyer. So it’s less a matter of teaching financial literacy, and more an issue of what should be taught and when is should be taught.

Literature review

Interest in personal finance education in US schools has increased significantly since the 1990s. From 1998 to 2009, the following changes occurred: states with content standards for personal finance education in the schools rose from twenty-one to forty-four, states requiring implementation of those standards increased from fourteen to thirty-four and states requiring that a personal finance course or economics course with personal finance content be taken before graduation from high school grew from one to thirteen (CEE 2009). The Jump\$tart Coalition for Personal Financial Literacy, formed in 1995, published the first national content standards for personal financial education in 1998 (Jump\$tart Coalition for Personal Financial Literacy 2007). The organization also sponsored national testing of high school students and has used the results to call national attention to deficiencies in youth financial understanding (e.g., Mandell, 2009). Moreover, changes in economic conditions since the 1990s have led to more studies of adults' problems with personal finance (Braunstein and Welch 2002). These developments together with reports of poor student test scores have reinforced the perceived need for more financial education among youth (Bernanke 2006).

Personal finance topics are commonly included in secondary education curriculums, but less frequently in elementary curriculums and undergraduate programs. Regardless of when it is taught, evolving financial practices are extremely relevant for today’s youth. For example, family financial practices are impacted by the emerging usage of debit cards, growth of e-commerce, and greater government involvement in the student loan arena. Increasingly, employees are challenged to assume greater responsibility for managing their own retirement programs, understanding changing health care guidelines, and making adjustments when Social Security regulations change. And there is evidence that these initiatives bear rewards later in life. For example, . a longitudinal study reported that adults who had taken a personal finance course in high school saved a greater proportion of their income when they were older (Bernheim, Garrett, and Maki 2001).

The 2008 recession had numerous negative economic outcomes, including job loss, reduction in values of retirement accounts, and a need to alter spending and savings patterns. Consequently, the importance of understanding and applying good personal finance practices is especially timely. Awareness of these practices may avoid lifelong financial complications, such

as failing to grasp the ultimate implications of student loan debt or assuming a mortgage loan in excess of one's capacity to repay it. In fact, the current sub-prime mortgage situation may have been caused by low levels of financial literacy in addition to improper behavior by some lenders and borrowers (Campbell, 2006). Indeed, the recent financial crisis should be considered a wake-up call concerning the necessity to teach financial literacy at all levels of education.

Education is not the only factor that can influence making effective financial decisions. Results of a literacy quiz given to high school students in Indiana found that several economic socialization factors have a positive impact on financial literacy: working 10-20 hours per week, having a savings account, and being from a family with income between \$50,000 and \$75,000 (Valentine & Khayum, 2005).

While there is widespread agreement that financial literacy must be taught in school, there is less agreement on the approach and the content to be covered. Vitt (2009) recommends a two-pronged approach—teaching personal financial literacy (knowledge) as well as trying to mold future financial behavior. Effective teaching within a personal finance course is more than simply providing basic knowledge at the lower cognitive levels. It must also include behavior management techniques that can be employed in the future (Vitt, 2009).

Teaching money management skills is not easy. Research by Fernandes, Lynch, and Netemeyer (2014) is discouraging. Their article uses a technique called meta-analysis, looking at results from 168 scientific studies of efforts to teach people to be financially astute, or at least less clueless. The authors' conclusions are clear: over all, financial education is laudable, but not particularly helpful. Like other education, financial education decays over time; even large interventions with many hours of instruction have negligible effects on behavior twenty months or more from the time of intervention. Those who receive it do not perform noticeably better when it comes to saving more, for example, or avoiding ruinous debt. Even more depressing, the results of efforts aimed at low-income people are particularly weak. Those who need the help most seem to benefit the least.

In terms of personal finance concepts, students should have a working knowledge of credit and debt, budgeting, savings, an understanding of investments and compound interest, needs/wants, planning for retirement, taxes, and career education (Vitt, 2009). Additional concepts should include personal and household finance basics, information about social security laws, and insurance (Atchley, 1998).

At the university level, Personal Finance is usually taught as a lower level finance course, often available to anyone on campus without prerequisites. It may or may not fulfill requirements toward a finance degree; if not, it would typically count as general education credit. Students generally enroll in the course for personal reasons, such a fulfilling an interest or learning specific, hands-on skills.

Methodology

In this paper, 102 students in two sections of Personal Finance were surveyed on the following nine topics in terms of relative importance to them, ranking on a scale of one (no importance) to five (very important). They are listed in the order reviewed in the text, *Personal Financial Planning*, by Gitman and Joehnk, 11th ed. With the exception of numbers 1 and 4, coverage was comparable to the text review. Numbers 1 and 4 were reviewed more extensively.

- 1) Critical reflection on personal values and the ethics of consumption
- 2) Understanding the personal balance sheet as a money management tool

- 3) Calculating rates of return on savings
- 4) Calculating auto loan payment and how to economize loan cost
- 5) Understanding how to calculate and save interest on a credit card
- 6) Understanding and better controlling health insurance costs
- 7) Understanding better controlling auto insurance costs
- 8) Understanding and calculating rate of return on stocks and bonds
- 9) Understanding and calculating rate of return on a mutual fund

A Pearson correlation coefficient was run comparing student perceptions of the importance of these topics with student performance on quizzes testing their knowledge of these subjects after learning them in class. A strong relationship may suggest proper emphasis and teaching effectiveness; a weak relationship may suggest, conversely, that which is deemed important is not being learned adequately. Regardless, results should provide a useful feedback loop about what students wish to learn and whether they are, indeed, learning.

Findings

In terms of topics of importance, from most important to least important, Table 1(Appendix) indicates the least interest in “critical reflection on personal values and ethics of consumption,” with the greatest interest in “understanding and better controlling auto insurance costs.”

In terms of performance with in-class assessment of these topics, students scored highest on “understanding how to calculate and save interest on a credit card,” while scoring lowest on “critical reflection on personal values and the ethics of consumption.” While the latter finding may be consistent with a relatively lower interest expressed in values and ethics, the former finding, reflecting greatest interest, should be consistent with a high assessment score. But it is not. Moreover, the item of greatest interest, “understanding and better controlling auto insurance costs,” is associated with only a middling assessment score. See Table 2 (Appendix) for results.

Conclusions

These somewhat contradictory findings are consistent with a Pearson Product Movement Correlation Coefficient of +0.295, indicative of a weak positive correlation between expressed importance in topics reviewed and subsequent assessment results. To be sure, performance outcomes for all subjects tested were fairly good. But their relative positioning is somewhat inconsistent with the “interests” ranking. Indeed, none of the top three subjects of interest (auto insurance, health insurance, and auto loan costs) ranked in the top three in terms of assessment outcomes. These subjects may be inherently technical and difficult to learn. This, coupled with strong student interest, may suggest the value of reassessing the relative time and effort in teaching these subjects.

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Appendix

Table 1. Interests survey

Topic	Interest level (1.0 = lowest to 5.0 = highest)
Understanding and better controlling auto insurance costs	3.9286
Understanding and better controlling health insurance costs	3.8555
Calculating auto loan payment and how to economize loan cost	3.8111
Understanding how to calculate and save interest on a credit card	3.6333
Calculating rates of return on savings	3.4111
Understanding the personal balance sheet as a money management tool	3.3777
Understanding and calculating the rates of return on stocks and bonds	3.2222
Understanding and calculating the rate of return on a mutual fund	3.2111
Critical reflection on personal values and the ethics of consumption	2.9111

Table 2. Performance outcomes

Topic	1.0 = lowest to 5.0 = highest
Understanding how to calculate and save interest on a credit card	4.7875
Understanding the personal balance sheet as a money management tool	4.7500
Understanding and calculating the rate of return on a mutual fund	4.7206
Understanding and calculating the rates of return on stocks and bonds	4.6987
Understanding and better controlling health insurance costs	4.6216
Understanding and better controlling auto insurance costs	4.6119
Calculating rates of return on savings	4.5000
Calculating auto loan payment and how to economize loan cost	4.3902
Critical reflection on personal values and the ethics of consumption	4.1392