Teaching Personal Finance to College Students: What Matters to Them

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We used specific financial life decisions, unavoidable immediately after graduation, to engage undergraduates in a one-credit university-wide general elective financial literacy course. We identified practical financial learning topics based on age-typical goals and then assembled 'how to' information for each goal while eliminating much of the theoretical academic 'why.' The analysis exposed decisions to be made and we introduced behavioral finance concepts matched to these decision discussions. We include a list of our topics found and not found in current textbooks to highlight how anchoring the learning objectives in the student life experience is a novel approach.

INTRODUCTION

The lack of personal money management skills and financial understanding among college graduates is well known and recently documented (Crain, 2013; LaBorde, Mottner, and Whalley 2013). Students with a school loan, a job, an apartment, insurance decisions, a paycheck, a credit card, and a car loan quickly realize their financial life is complicated. In addition, we as individuals are financially interacting with corporations to conduct our most significant monetary decisions with no training, relying on a corporate agent's "good will" for guidance. Universities are now responding to the need for training with Personal Finance courses which are often slimmed down selected topics taken from introductory finance and money and banking texts.

We took a different path. The paper is organized to aluminate the path followed and how our steps led to an oblique focus to teaching personal finance based on the behavioral finance and simple science to coach students through near-term and unavoidable financial decisions. One key aspect of any college course aimed at financial decision literacy is the relationship between the immediately practical information, 'how to' and the theoretical academic body of knowledge 'why.' We assumed that much as high schools teach "driver's education" not because it fits into the curriculum but to address the license-ready age of the student body wanting to be successful drivers, we would similarly add a general elective service course aimed at the financial decisions our students would face immediately upon graduation. We then assembled a list of "training topics" akin to the skill-based driving lessons of "traffic merging" and "parallel parking" and assumed our student had no previous skills. We presumed that a lightweight personal finance text would be readily found to fit our needs. While there are many outstanding examples of popular and academic personal finance texts (e.g., http://www.inc.com/geoffrey-james/top-10-personal-finance-books-of-all-time.html), none exists with this age group orientation. And the theme of these texts is wealth accumulation, an important concern but one that does not align with what matters most to a young undergraduate student. We therefore proceeded cautiously to interview potential enrollees. The initial feedback led us to change the name to Personal Money Management and cull low-interest personal finance topics related to longer-term issues, such as the following:

- Retirement (briefly covered as low priority after managing personal debt)
- Marriage (decision time horizon is more than 2 years)
- House Mortgages (decision time horizon is more than 2 years)
- All finance numeracy, including compound interest rate (a widget now found on all smart phones)
- Securities selection and valuation

BEHAVIORAL FINANCE

The remaining topics were focused on practitioner knowledge required to execute the money decisions directly ahead of the graduating student and little else. The removal led naturally to learning objectives focused on the financial decision process itself and that led to the related behavioral finance concepts. Prospect theory, loss aversion, overconfidence, framing, anchoring, and confirmation bias are concepts used to develop a student's self-reflection and their discovery of unrecognized decision biases.

Employing techniques such as using a peer to check soundness of analysis (Thaler, Sunstein, 2008), asymmetrical valuation of loss vs gain (Barberis, Huang, Santos, 2001), starting position biases and loss-aversion (Kahneman and Tversky, 1979), and inexactness of measurement (Daniel, Hirshleifer, Subrahmanyam, 1998), the course introduces behavioral finance concepts applied to the student's first independent financial decisions not for the academic understanding of the theory but for the advantage in specific personal financial decision-making. The course explains the mechanics of each topic and includes discussions of decision points. Each decision presents an opportunity to connect a behavioral finance concept, however succinctly, as we coach the student on how to be cognizant of their personal biases, preferences, and goals in financial decision-making.

SCIENCE AND DATA

While we use little applied mathematics other than arithmetic, we found that students are not facile at comprehending data and process. The population data that define rich and poor status, life expectancy graphs, trends in personal economic activity, and tax tables all need to be used to mechanically look up answers. This required the addition of learning objectives on reading table data, simple graphs, process identification, and re-introduction to the scientific method, all within the concrete operational examples.
The blended result of these topics can be seen in Table 1 and is captured in the following description.

CATALOG DESCRIPTION

BFIN 1003 Personal Money Management**.** Ten-session course on the ABCs of personal money decisions following graduation using only simple arithmetic and no writing assignments. Topics include buying a car, renting an apartment, bank & brokerage accounts, school loan management, credit card debt, selection of health and auto insurance, and filing your own income taxes. Offered: Fall, Spring, Summer. No credit toward finance concentration. 1 credit

DEPLOYMENT

What follows is a brief comment to give context to each of the ten classes and an example of the learning objectives.

Class 1, Decision Making: We establish humans as the combination of near-instinctive quick-thinking blended with a slow, deliberative analysis (with a tendency to overweight human judgment). We all have differing goals, aspirations, and values, and our need "to be right" can be especially strong. All can learn a few behavioral techniques to insure we match our decisions as closely as possible with our values and personal goals. One technique is the use of a peer, not a parent or a professor, as a decision buddy to slow the decision process and encourage more outcome formation and reflection.

Class 2, Keeping Score: This lesson affirms that students, on average, are poor now and going further into debt. We use government definitions of poverty and age specific sources for them to self-evaluate. While not surprised with the label poor, this is often the first hard performance metric in dollar amount by region applied to them as an individual. Comparing their high school peer, who is now a licensed plumber free from accumulating college debt, we straight-line both incomes to see when the larger college income takes the lead in lifetime earnings, and overcomes the student-loan handicap.

Class 3, Contract: This lesson is about basic contract literacy. The learning objective is first to recognize why a contract is needed at all; second, when a contract execution process is within accepted business practices; third, the minimum common language items to verify; and fourth, what to expect (and not to expect) when a lawyer is needed.

Class 4, Car Purchase: This includes preparatory steps before shopping for a car, including seeking pre-approved bank loans. This seven-step checklist is followed by a thought problem. Should I buy a car to allow me to hold a part-time job during the last two years of college? We work through total cost of ownership as well as introducing cash flow challenges during the 24 months. We end by comparing our beginning balance sheet to ending balance sheet to compare how much gross income was consumed in the process.

Class 5, Insurance: This introduces risk concepts and process. First, there is the need to identify the size of our potential loss before shopping for insurance. We include a discussion of disproportionate bias and loss aversion both compared to starting position and emotional weighting as we run through major loss types: car, apartment, health, life, and travel.

Class 6, Paychecks: This explains the three entities: employee, employer, and government, and the three money transfers that a paycheck records. It also identifies each of the typical deductions and its relationship to how a W-4 is completed on the first day of a new job.

Class 7, Taxes: This covers in-class completion of a 1040EZ tax filing for their income, addressing when their parents should claim them, why they should file (most get a small refund for summer jobs), and a conversational knowledge of our progressive tax system.

Class 8, Budgets: This models a student sail boat (actual expense) using a fixed light house (budget) to judge direction and progress. We build budget categories from a bag of receipts collected over one month and emphasize that developing the budget habit now when life is simple is a lot easier than trying to adopt the discipline later.

Class 9, Investing: This introduces opening an investment account and building a small risk-blended portfolio. The course repeatedly stresses addressing debt management as the key skill to long-term wealth accumulation and equates market investing as a highly structured form of gambling. We introduce a balanced portfolio concept with risk tolerance weightings and simple defenses, such as stop-loss orders.

Class 10, Charity: This reviews the positive impact charitable giving has on society for the betterment of all, rich and poor alike. Time is devoted to hard facts on the methods and the amounts most people give, how to spot scams, and the difference between non-profit corporations and tax-deductible gifts.

Class 11, Final Examination: The one graded test comprises a random selection from each week's ungraded self-tests and is the bulk of the grade points. The on-line and ungraded self-tests allow students to self-evaluate comprehension prior to the final.

STUDENT OUTCOMES AND PROFESSOR EVALUATION

Student population enrolling since spring 2011 includes undergraduate freshmen to seniors from a wide range of concentrations across Business, A&S, Diplomacy and Nursing. During the seven semesters the business school independently administered student course evaluations and all were above the school average and considered satisfactory. (See Table 2).

The final exam is 80% of the grade with the remainder attendance and completion of 10 on-line self-tests. Much like drivers education, we will not know if they will crash the car until a few years from now, but the final exam scores lead us to believe that we have been successfully engaging each cohort and provided a practical financial decision-making knowledge base for future learning. (See Figure 1).

CONCLUSIONS AND SUGGESTIONS FOR THE FUTURE

We discovered an encouraging relationship between near-horizon financial tasks, operational knowledge, behavioral finance decision science, and basic data skills that were all delivered at an introductory level. Our conclusion is that using this blended approach could increase financial literacy in undergraduate students by providing a "starting point." We observed student willingness to engage in the course material and to actively participate when the teaching examples were filled with what matters to them at their age.

We are next exploring course adoption by school within a university to allow further tailoring to the typical financial decisions, such as starting job compensation and continuing certification expense requirements after graduation from a school of nursing or education. We leave for further research a disciplined study comparing student financial literacy of course graduates to non-graduates within the same cohort.

TABLE 1
LECTURE TOPICS WITH LEARNING REFERENCES

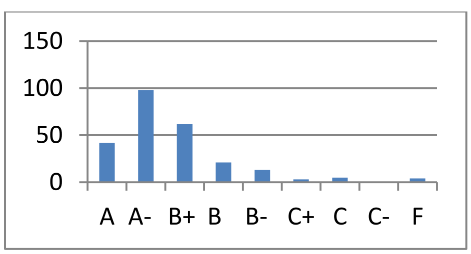
Class	Topic	Lead Question	Finance	Behavioral Finance	Science & Data
1	Decision Making	What is the right answer about spending?	Capital, Debt, Wealth	Peer Checking, Overconfidence, Confirmation Bias	Goal Setting, Hypothesis
2	Keeping Score	How do I tell if I am rich or poor?	Asset, Valuation, Balance Sheet	Starting Position Bias	Time Series Data
3	Contracts	What is an obligation to pay?	Arbitration, Counterparty, Corporate Identity	Associative Memory, Gentleman's Agreement	
4	Buy a Car	How can I own a car?	Depreciation, Loans, Down Payment, Cash Flow	Anchoring	
5	Insurance	Car, Health, Life, Apartment, Travel, really?	Risk, Valuation in Money	Loss Aversion	Probability Graphs
6	Paychecks	What is all that paycheck stub info?	Employer role, Government role		
7	Taxes	Can I do my own taxes for free?	Tax	Starting Position Bias	Progressive Tax Rate Table

8	Budgets	Why should I care about boring budgets?	Accounting, Categories, Liability	Inexactness of Measurement	Survivorship Bias
9	Investing	Should I get started investing now?	Broker, Advisor, Product Types, Portfolio	Asymmetrical Loss Weighting, Framing, Prospect Theory	Life Expectancy Tables
10	Charity	Give away what little I have?	Not-For-Profit, Tax Deductions	Ethics in Personal Decisions, Fraud	Random, Correlation, Causation

TABLE 2
AVERAGE STUDENT COURSE FEEDBACK FROM 2011 TO 2014

Ref.	Course Evaluation	Score
Q1	Course objectives clarity	4.7
Q6	Real world content	4.7
Q20	Meeting stated course objectives	4.7
Q22	Increased student's interest	4.3

FIGURE 1
GRADE DISTRIBUTION - ALL SECTIONS
2011 TO 2014



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