Designing an Online Financial Literacy Course:

Companion Paper for *Introduction to American Personal Financial Literacy*

Richard Thripp

University of Central Florida

April 12, 2016
Abstract

How can we increase financial literacy and encourage beneficial behavioral change, such as responsible spending and avoiding high-interest debt? This companion paper to the online course on Udemy.com, *Introduction to American Personal Financial Literacy*, reviews the recent literature on American financial literacy and explores how to make an online course motivating and enjoyable. Important issues are covered, such as the effectiveness of existing interventions and workshops, the financial state of the general public and specific at-risk groups, and how the present course implements efficacious frameworks including cognitive load theory, achievement goal theory, expectancy–value theory, and the mindset model. Overall, the focus is on creating a survey course for adult learners that subsumes the Jump$tart Coalition’s National Standards in K–12 Personal Finance Education, while providing targeted strategies to address common financial problems.

*Keywords:* financial literacy, online courses, pedagogy, course design, e-learning, personal finance, money management, Udemy, instructional design
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This paper serves a dual purpose: first, it provides a framework to educate the learner on a wide range of basic financial issues, based on peer-reviewed financial literature and motivational principles. Second, it explains the rationales and methodologies regarding instructional design, instructional devices, and topic selection for the present course.

**Themes and Issues**

**Financial Literacy Education Issues**

*Teacher preparedness.* Typically, teachers feel unprepared to teach financial literacy skills, even though they recognize how important these skills are to K–12 students (Way & Holden, 2009). They frequently lack content knowledge regarding more advanced topics such as investing and risk management, and two-thirds of teachers report being unfamiliar with financial education standards put forth by the Jump$tart Coalition or their state (Way & Holden, 2009). This lack of preparation may result in low feelings of self-efficacy for teaching the requisite skills, reducing motivation to make such attempts (Pajares, 1996). In fact, less than one-third of K–12 teachers in Way and Holden’s (2009) survey reported teaching financial topics at all.

These issues are particularly salient for K–8 teachers, who are less pedagogically prepared than high school teachers at teaching financial concepts. Lucey and Maxwell (2011) identify both teacher education and curriculum development as being deficient areas—textbooks often encourage developmentally inappropriate practices such as teaching decimalized dollar amounts to K–2 students, and exercises often “tack on” dollar figures to math problems without any financial literacy context.
Adults lack basic knowledge. The lack of K–12 financial literacy education is a potential reason for American adults’ surprising lack of financial knowledge, which leads to predatory exploitation by payday lenders, rent-to-own stores, and used car dealerships (Karger, 2015). However, mandating one-shot financial literacy classes in high school does not appear to improve financial literacy (Roszkowski, Glatzer, & Lombardo, 2015). While integrating financial education throughout the K–12 curriculum (as suggested by Jump$tart Coalition for Personal Financial Literacy, 2015) would be ideal, the current generation of adults remains under-educated. This may be remedied through education that demonstrates value (e.g., education provided at teachable moments) and meets adult learners at their current levels of development (e.g., Gredler, 1992).

Taking advantage of teachable moments. Offering or mandating financial education during teachable moments, such as immediately before making an important financial decision, has demonstrated efficacy (Fernandes, Lynch, & Netemeyer, 2014; Carlin & Robinson, 2012). For example, students typically undergo mandatory entrance counseling before receiving their first student loans. This type of intervention often shows near-term impact, while high school or even adult education courses may yield no benefits to financial decisions made months or years after the course concludes (Fernandes et al., 2014; Roszkowski et al., 2015). In teachable moments, the learner arguably has a powerful extrinsic motivation to be taught: saving money or improving financial factors, such as one’s credit report, via targeted education addressing an impending financial decision. From an instructional design perspective (Wlodkowski, 2008), open-access online courses offer a prime opportunity to harness teachable moments. Learners may simply come in and take what they need from courses to address impending financial
decisions, rather than undertaking a program of study for broad, personal enrichment as liberal arts education may aim to provide (Crain & Ragan, 2012).

**Financial education from community- and adult-education perspectives.** Placing financial education in a community context using theory-driven practices is recommended (Collins & Holden, 2014). While the present course does not exist in a community context, it does address many adult-education issues, including various mechanisms that exploit working-class Americans (Karger, 2015), and recommendations to mitigate them. Learners in the present course are encouraged to ask questions and not simply trust professionals like investment advisors and mortgage brokers, due to the disastrous consequences others have experienced, such as foreclosures stemming from adjustable-rate mortgages, the terms of which mortgage brokers nefariously concealed (Ross & Squires, 2011). As English (2014) has proposed, shifting blame from the consumer to the plutocracy is not only warranted, but may also reduce adults’ feelings of guilt, which could reduce their anxieties for financial education. Gaining financial knowledge will result in informed, beneficial financial choices and behaviors, according to Hilgert, Hogarth, and Beverly (2003). Over time, financial literacy may lead to higher socioeconomic status, which is correlated with favorable outcomes such as better health and education.

**Effects of financial literacy interventions and higher education in general.** Surprisingly, high school classes often do not improve financial literacy, possibly due to lack of perceived personal relevance (Mandell & Klein, 2007). Intense financial literacy courses at the undergraduate or graduate level yield large gains in some studies (Gross, Ingham, & Matasar, 2005; Lindsey-Taliefero, Kelly, Brent, & Price, 2011), though these improvements diminish over time (Fernandes et al., 2014). However, college education is frequently unrelated to good financial practices. College graduates have been shown to be more likely to carry onerous
financial obligations exceeding 40% of their income (Hanna, Yuh, & Chaterjee, 2012). In a survey, one-third of early-career psychologists stated they would have chosen a different career path if they could go back in time, due to their present high student loan debt and suboptimal income (Doran, Kraha, Marks, Ameen, & El-Ghoroury, 2016). This suggests that even college graduates and advanced degree-holders have woefully underdeveloped financial knowledge.

**Online Course Design**

**Engagement in online courses.** Bailey, Hendricks, and Applewhite (2015) devised an online educational leadership course incorporating innovative assignments, such as writing short “Twitter” summaries of a course textbook, creating work samples, creating a screencast, responding to course materials by making a video, and interviewing inservice school administrators. The course also included traditional elements such as term papers and quizzes. In a student perception questionnaire administered after the end of the course, students reported feelings of engagement, enjoyment, and transferability for the innovative assignments. Traditional quizzes and papers were seen as less interesting and valuable. While group work was also included, many negative perceptions were voiced due to group members not carrying their share of the load, or not communicating adequately.

**Peer grading, self-grading, and self-regulation.** Another finding of Bailey et al. (2015) was that peer grading is often seen as unfair and of unpredictable quality. Kulkarni et al. (2013) found this is typically related to ambiguous rubrics—using parallel sentence structures and strict operational definitions resulted in higher consistencies between staff- and peer-assigned grades in a massive online course. Even with these refinements, peers still tended to give higher grades to peers from their own country, even when national origin is not provided. On the Udemy platform, peer grading is not offered, and instructor grading can be time-prohibitive in free
course offerings with hundreds of students. A possible alternative is self-grading. If learners are intrinsically motivated by mastery goals (Ames, 1992), they may be more self-regulated—proclivities to “cheat” may be minimized. Therefore, it may be efficacious to ask the learner to complete an assignment and then grade him- or herself with a rubric, while not “peeking” at the answers until after completing the assignment. Testing oneself, rather than merely re-reading passages, has been found to greatly aid long-term retention (Roediger & Karpicke, 2006).

Attrition. Attrition is rampant in massive open online courses (MOOCs). An analysis of 221 such courses by Jordan (2015) revealed a median completion rate of only 12.6%. Although attrition is often characterized as a failure of the instructor or learner, this is not necessarily correct, especially in topical, non-sequential courses. The learner may only be intensely interested in certain modules or aspects of the course; “failure” to complete or significantly engage with the course does not mean that at least one major learning outcome has not been realized. Nevertheless, if we entertain the objective of lowering attrition, Jordan (2015) finds that shorter courses with automatic grading, rather than instructor- or peer-grading, tend to have significantly higher completion rates. The present course is fairly long (8–10 hours), but implements automatic- and self-grading. Since the present course is self-paced, can be accessed in any order, and covers many distinct topics, from an expectancy–value perspective (Wigfield & Eccles, 2000), it makes sense that the subjective value of individual tasks will vary widely between individual learners, including “incentive and attainment value” and “utility value” (p. 69). If we characterize attrition as a failure to complete a majority of course content, attrition in the present course may be quite high, without being of practical significance.
Financial Education Standards

National Standards in K–12 Personal Finance Education (Jump$tart Coalition, 2015). The Jump$tart Coalition has put forth standards that are comprehensive and are partly related to results on Jump$tart questionnaires administered to high school students. These questionnaires have demonstrated reliability and validity, albeit less robustly than would be ideal (Lucey, 2005), and have been of value to researchers (e.g., Scott, 2010; Seyedian & Yi, 2011). The standards themselves resemble the Council for Economic Education’s (2013) standards, both of which were developed or at least reviewed by finance, business, education, and government leaders (e.g., Bosshardt & Walstad, 2014). Unfortunately, standards development has been decidedly disconnected from teachers and the general public, and no preferable alternative exists. Therefore, the Jump$tart Coalition’s (2015) standards have partly guided the present course, though about half of the present course’s learning objectives do not obviously coincide with the Coalition’s standards, being alternatively derived from consumer issues identified in peer-reviewed journal articles or textbook chapters (e.g., Hanna et al., 2012; English, 2014). Nevertheless, the course uses a similar structure to the Jump$tart Coalition’s (2015) standards and retains their categories as unit titles. Based on the author’s searches, this is the first free, open-access online course to implement a large portion of the Jump$tart Coalition’s standards.

Empirical soundness. There is a wide range of empirical data regarding financial problems, behaviors, and effectiveness of interventions—for example, Fernandes et al.’s (2014) rigorous meta-analysis. While the underlying studies can inform instructional practices and learning goals, many are unfortunately lacking in key data relating to samples, materials, and methods. The roots of this problem go deep—financial education suffers an overwhelming “lack of standards” (McCormick, 2009, p. 75), meaning that validated materials do not exist, which
inhibits the validation of new materials due to a lack of reference. Combining the existing financial literacy research with theories of learning and instruction may be a suboptimal, yet workable, alternative.

**Applied theory.** There are several learning, instruction, and motivation theories or frameworks that can logically be applied to financial education. For instance, learning activities can be targeted and scaffolded with Vygotsky’s zones of proximal development as a guiding framework (Gredler, 2012). Possible avenues include tailoring to a target audience or assessing development through questionnaires, from which instructional materials of differing difficulties can be proffered. Unfortunately, the typical financial education website throws a morass of content knowledge at the learner, without employing a guiding framework for instruction or learning. This may be the equivalent of handing the learner an encyclopedia. Courses designed without applied theories are apt to be less effective. While the present course does not offer differentiated instruction, it uses the Jump$tart Coalition’s (2015) standards as a guiding framework. The present course’s execution is consistent with cognitive load, achievement goal, and expectancy–value theories, while emphasizing subjects identified as problem areas in recent financial literature.

**The need for remedial education.** The financial literacy of young people is quite poor and appears to be declining, particularly among young people with credit cards (Scott, 2010). Therefore, remedial education for adults may be in order. This is especially true among low-income households who did not receive much parental guidance on personal finance, because such households are significantly more likely to be rocked by delinquency and foreclosure (Grinstein-Weiss, Spader, Yeo, Key, & Freeze, 2012). By inductive reasoning, such households may also be more likely to accumulate credit card debt while not saving for retirement or
emergencies. While general-purpose financial education tends to decay without being used, purposive interventions given immediately before an important decision are far more efficacious (Fernandes et al., 2014). Therefore, this is an appropriate focal point for remediation efforts.

The Present Course

Theories

**Cognitive load theory.** Many financial education programs do not consider cognitive load theory (Bruning, Schraw, & Norby, 2011); they overwhelm learners with information that is too broad or complex. This course approaches this in several ways. While some materials have a fairly high intrinsic load, such as developing a budget or understanding credit scores, here, graphs and text are presented together, to prevent split-attention effects. In several slides, the author has at first presented a table, and then on the next slide, shown an abbreviated version of the table with bullet points that are discussed in the narration. This prevents incidental processing that may arise from a separated presentation (Mayer & Moreno, 2003). When presenting screenshots from Microsoft Excel or government websites, this course employs signaling by circling important areas in red, which are then discussed in the narration. These narrations are directly timed with slides, meaning the course is employing synchrony as well (Mayer & Moreno, 2003). Moreover, the course avoids unnecessary distractions, such as background music and showy animations. All these techniques are intended to reduce extraneous cognitive load.

**Achievement goal theory.** Achievement goal theory (Ames, 1992), including the multiple goals perspective (Senko, Hulleman, & Harackiewicz, 2011), has been a useful lens for the present course. Specific activities have been designed with mastery-approach goals in mind, such as reflections, quizzes, and self-assessments. Learners are even encouraged to repeat these activities to achieve mastery. Other materials cater to a performance goal orientation, such as
negotiating with debt collectors and lowering one’s car insurance premiums—in fact, course materials often encourage learners to consider what others are doing that the learner is missing out on. While this is a self-paced, self-directed course with no peers, learners may compare themselves to peers in their lives. Utilizing both mastery and performance goals may be at odds with Ames (1992), but may have distinct benefits from the multiple goals perspective (Senko et al., 2011), because each type of goal serves specific purposes.

Expectancy–value theory and growth mindset. Ideally, financial education should have high importance, strong intrinsic value, high utility, and low cost. These are the components of the achievement portion of expectancy–value theory (Wigfield & Eccles, 2000). Compared to higher math, financial arithmetic might be simpler and less onerous to learn. It is also directly related to one’s life choices and financial success, which could result in intrinsic motivation and feelings of personal relevance, particularly if taught at teachable moments (e.g., Fernandes et al., 2014). On the other hand, there may be strong extrinsic motivation manifesting as utility value, given that financial education can help one “reach some desired end state” (Wigfield & Eccles, 2000, p. 73), such as improving one’s credit or investing for financial freedom in retirement. This motivations may coexist, with learners approaching certain materials with extrinsic motivation, while others are approached with intrinsic motivation or skipped entirely. The present course covers credit, retirement, and more, and therefore caters to this aspect of expectancy–value theory. The course also avoids praising or criticizing decisions based on personal attributes (Gunderson et al., 2013), and actively encourages a growth mindset (Dweck, 2006), which could lead to adaptive ability beliefs and expectancies for success in the expectancy–value model (Wigfield & Eccles, 2000). From Dweck’s (2006) mindset studies, we see that adaptive beliefs typically encourage diligent effort, rather than fatalistic beliefs that
being a “math person” or “money person” is something you are born with. Growth mindset, therefore, may solve a large portion of the expectancies component of expectancy–value theory, while the value component may be readily apparent in an applied financial literacy course.

**Instructional Strategies**

**Conveying personal value through problem–solution oriented exercises.** This course has three exercises that solve particular problems for learners: rebuilding your credit, preventing identity theft, and negotiating job interviews, raises, and promotions. These particular skills create personal value by filling a need for many learners (Mandell & Klein, 2007). Some may come to the course specifically for this information, which could lead to further exploration of the course at a later date. These action-oriented modules are more useful than putting out a lot of general information about finance, because they strategically apply the information while using trustworthy, government sources. In fact, because they are personally relevant, they may increase intrinsic motivation (Pintrich, 2003).

**Growth mindset.** Numeracy skills and personal finance are related (Scott, 2010). Many students believe they are not “math persons,” indicating a fixed-ability mindset which may become a self-fulfilling prophecy (Dweck, 2006). My course includes a pep talk on growth mindsets, but more importantly, growth mindset is weaved throughout the course through encouraging messages and a forward-looking approach. Such an approach may improve receptivity to both mathematical and financial education, encouraging the learner to become confident (Assad, 2015). From an expectancy–value perspective (Wigfield & Eccles, 2000), this may promote higher expectancies for success and beliefs that ability is malleability, encouraging diligent effort.
Use of narrated slides. Narrated slides can be effective at engaging learners in multiple modalities. This is particularly true when the narration adds value and refines points in the slides (a “nonredundant presentation”), rather than simply regurgitating the content of the slides (a “redundant presentation”) (Mayer & Moreno, 2003, p. 49). In units 2 and 5, narrated slides that occasionally include screenshots of valuable articles and websites are used. Consistent with Mayer and Moreno (2003), the presentations are nonredundant, with the slides providing a basic structure that is elaborated upon in the narration. Some of these screenshots educate the learner on how to perform particular tasks, such as using Microsoft Excel to construct a net worth spreadsheet, or using the Social Security benefits calculator (www.ssa.gov). This approach is consistent with strongly-guided instruction, which is arguably more effective (Kirschner, Sweller, & Clark, 2006) than an unguided, “discovery” learning environment such as Wikipedia.

Instructional Devices

Self-assessment. Early in the course, self-grading has been implemented via a financial priorities self-assessment, which provides scaffolding for the learner to write a paragraph about his or her financial goals (see Appendix A). The learner is instructed not to scroll down to view the rubric until after completing the paragraph. Then, the learner should grade his or her assignment based on the rubric, assigning up to 30 points based on the concerns and perspectives addressed in the learner’s paragraph. The learner can then choose to revise and repeat with new knowledge of the rubric, further cementing the learning gains. This activity may promote crystallization of one’s goals and priorities (e.g., Roediger & Karpicke, 2006).

Twitter summaries. The results of Bailey et al. (2015) were implemented, in part, through a Twitter summaries activity. At the end of the “Spending and Saving” unit, learners are asked to write Twitter summaries regarding several topics from the module. This activity
includes “answers” written by the author for learners to compare their work to (see Appendix B). This activity encourages learners to think critically about the material, and gives them at least two perspectives to compare.

**Quizzes.** While quizzes may be a formulaic, unpopular activity (Bailey et al., 2015), in this course, they have been implemented in an engaging way. In unit 3, a quiz on credit cards presents the case of Frank, a cash-strapped college student ready to go to town with his first credit card (see Appendix C). In unit 5, an investing quiz encourages learners to assess what they have learned, primarily through decision-oriented questions, rather than definitional questions. These types of questions are similar to the dilemmas faced by adolescents at the Junior Achievement Finance Park in Los Angeles, CA, which have been shown to produce strong improvements in financial decision-making (Carlin & Robinson, 2012). Explanations are provided for each correct and incorrect answer, aiding the learner by explaining why certain answers are preferable or suboptimal.

**Other devices.** My course encourage learners to produce a budget and net worth spreadsheet, with suggestions and examples in narrated PowerPoint presentations. Other “strategy guides” are included, such as an article on how to rebuild damaged credit, a talking head video about the costs of auto depreciation and how to negotiate the price of a new car, an article with strategies derived from Jans, Kaye, and Jones (2012) on negotiating job interviews and promotions, and an article with specific strategies and rationales for reducing one’s risk of identity theft. Many of these devices coincide with the Jump$tart Coalition’s (2015) standards. While the coalition aims to educate K–12 students who have not yet got themselves in financial hot water, the present course endeavors to offer a combination of preventative advice and
strategies for ameliorating existing financial problems, which may be particularly relevant to an adult audience that has many ongoing financial difficulties (English, 2014).

**Topics**

**Scams and consumer protections.** While financial education has mixed results, in Gross et al.’s (2005) financial literacy course, the largest long-term learning gains occurred in scams and consumer protection education. Therefore, these areas might particularly benefit from education. This course goes in-depth, educating learners about payday loans and rent-to-own scams (Karger, 2015), the consumer protections that credit and debit cards offer, and strategies to avoid phishing emails and minimize risk of identity theft. Learners are encouraged to search online using reputable sources to determine if a financial product is worthwhile. They are also educated about various rights, such as the right to receive credit reports, ChexSystems reports, and CLUE reports at least once per year, and the right to dispute derogatory information. While this knowledge is easily accessible via web search, surprisingly, many Americans do not seek out information, and are blindsided by predatory practices (e.g., Ross & Squires, 2011). Learners may come to the present course to solve a particular problem, and then go on to learn valuable financial information they would not even have imagined searching for.

**Spending and saving.** Bearing the same name as a core unit of the Jump$tart Coalition’s (2015) standards, this unit covers banking, budgeting, net worth, payment methods, consumer protections, saving, and shopping. These are the foundational elements for a sound financial life, given that profligate spending can spell destitution even for the highest earners. Research by Garbinsky, Klesse, and Aaker (2014) showed that feeling powerful, including even something as basic as sitting in a tall chair versus a low chair, resulted in individuals choosing to save money for their future security. On the other hand, feeling powerless motivated participants to save for
unwise, status-oriented purchases such as a luxury car. If we integrate this with Hilgert et al., (2003), who found that knowledge of credit, saving, and investment was correlated with better financial practices in these areas, it is plausible that financial knowledge can be empowering and can lead to better decisions, at least in certain populations. Using narrated PowerPoint slides that include text, explanatory figures, and images (see Mayer & Moreno, 2003), this unit gives the learner guidelines on topics such as avoiding overdrafts, understanding how ChexSystems works, making a budget that considers taxes and irregular expenses, understanding the benefits and downsides of paying with cash, and the motivational and tax benefits of particular savings accounts. These materials satisfy many of the Jump$tart Coalition’s (2015) benchmarks. In fact, 46% of K–12 teachers felt “not very” competent to teach “saving and investing” in a study by Way and Holden (2009, p. 70), which implies that the general public may greatly need education in this area.

**Credit and debt.** Consumers who misunderstand the costs and concerns in this area are at a huge financial disadvantage (Grinstein-Weiss et al., 2012). The present course educates learners both on the dangers of debt, particularly credit card debt, and on the factors that improve one’s credit score. Having a good credit score can be important even for people who never need loans, because banks, potential employers, landlords, insurance companies, and others rely on credit scores as indicators of responsibility and trustworthiness. While using credit scores in this manner might be unfair and inaccurate, it is nonetheless a common practice. Therefore, being educated about what impacts your credit score is quite important. The present course provides a playbook for negotiating with debt collectors and getting derogatory information removed from credit reports, a case study and quiz on responsible credit card usage (see Appendix C), suggestions for car shopping and loan seeking, and evidence of the psychological toll of debt
(e.g., Mueller, 2014; Ross & Squires, 2011), which may motivate learners to take their finances seriously and to question and double-check the advice of experts.

**Employment and taxes.** The present course presents strategies for job interviews based on Jans et al.’s (2012) research on strategies people with disabilities use. Overall, focusing on strengths and tailoring each application to the employer, including background research on the employer and position, may be a better approach than mass submissions of résumés. Payroll taxes are covered in-depth, which may be a source of confusion for many Americans—the urban legend that 50% of Americans do not pay federal taxes is debunked when one realizes that even low-income individuals are subjected to Social Security and Medicare taxes, both on their paychecks and through invisible employer payments. In the final course, this unit will also include information on workers’ rights and special concerns for the self-employed. Thus, it will cover the Jump$tart Coalition’s (2015) standards for the “employment and income” competency and include additional materials relating to workers’ rights, such as overtime pay and OSHA regulations, which are important yet not addressed by the coalition.

**Investing.** Neither education nor parents’ investment portfolios seem to predict investing skill; even 92% of graduate students have indicated little confidence in their investing abilities (Mandell & Klein, 2007; Hilgert et al., 2003). Sadly, teachers often have no investments to speak of, which can make it difficult for them to speak authoritatively on the subject (Way & Holden, 2009). The approach in this course has been to introduce topics without diving into too much depth for an introductory course, while referencing authoritative, government websites the learner should explore, if interested. This is consistent with a liberal arts curricular approach, which may aid interdisciplinary connections through its broad scope (Crain & Ragan, 2012). The present course includes information about investment goals, an argument in favor of passively-
managed index funds, a pros–cons analysis of home ownership, and fairly detailed information about retirement, including the characteristics of tax-deferred and tax-exempt accounts, how compound interest works, and how to use the Social Security Administration’s benefits calculator. Adults who were taught these and other financial skills by their parents tend to have better money management habits, according to a study by Grinstein-Weiss et al. (2012).

Investing is a higher-order skill which may be improved by finance courses (Seyedian & Yi, 2011). Further, investment knowledge is a problematic area for many learners, which means this unit may be especially valuable.

**Risk and insurance.** Risk management may be one of the most confusing areas of financial literacy: according to Way and Holden (2009), it is the most troublesome category among schoolteachers, with the majority feeling unqualified to teach it. The present course explains the purpose and value of insurance as something that covers large, unexpected expenses or hardships, in line with the 12th grade benchmarks from the “risk management and insurance” competency of the Jump$tart Coalition’s (2015) standards. This information guides the learner to avoid insurance that has a low return-on-investment (ROI) or does not prevent major financial loss, such as children’s life insurance, collision and comprehensive insurance on older cars, and extended warranties peddled at Best Buy and other retailers. This unit discusses identity theft prevention at length, offering many strategies to reduce one’s risk, such as not using personal checks, guarding one’s personal information, using a shredder, and securing one’s online accounts with different usernames and strong passwords. In the final course, health insurance, including the Health Insurance Marketplace, will also be covered. Insurance allows us to “transfer risk” according to Bosshardt and Walstad (2014, p. 67), who, like most experts, consider it a vital topic for any financial literacy curriculum.
Financial decision making. While all of the topics in this course relate to financial decisions, this unit hones in on the consequences of such choices. In the present draft course, it is far from completion, but is intended to cover choosing a college to attend and a field of study, including evidence that many psychology graduates are regretful (Doran et al., 2016), negotiating with the financially reckless partner and understanding how such relationships may be based on complementary attraction (Rick, Small, & Finkel, 2011), the differences between tax avoidance and tax evasion, and the financial benefits of family planning. Clearly, a holistic approach to financial literacy requires an interdisciplinary approach that integrates many seemingly ancillary topics. Because this can be overwhelming for both the learner and instructor, the present course will exclude many ancillary topics such as nutrition and gambling, which are likely unnecessary for an introductory course. Decisions about children and education will be included because they are putatively relevant, however (e.g., Crain & Ragan, 2012).

Synthesis and reflection. For many learners, taking a financial literacy course is neither interesting nor exciting. While the prospect of earning and keeping more money may be motivating, what is presented in a finance course can seem distant and wholly disconnected from these outcomes (Mandell & Klein, 2007). Bridging this gap seems to require unorthodox methods, particularly for an elective course that offers no external incentive such as college credit hours. Providing “just in time” financial education has promise (Fernandes et al., 2014), perhaps because learners are motivated by self-interest to address the problem at hand (e.g., Mayer, 1998). This course provides a mix of activities to solve at-hand problems for the learner and activities that serve no immediate purpose, such as writing Twitter summaries and reflecting on one’s learning gains. While it is expected that some learners will skip self-assessments and
reflections, they are autonomy-supportive activities that may enrich the learning experience and aid long-term retention (Reeve, 2009).

Discussion

Limitations

Instructional design theory. A primary limitation of the present course was failure to integrate an instructional design theory. While various theories and frameworks were used, an overarching theory to guide course development was absent. Such a theory could act as a common thread throughout the course, emphasizing development of skills, rather than a primarily content-oriented approach. A systematic approach based on the ADDIE model may be implemented in future versions of the course. While the origins of the ADDIE model are unknown, according to Molenda (2015), it is “virtually synonymous with instructional systems development” (p. 40), yet serves as a memorable acronym identifying the steps of analysis, design, development, implementation, and evaluation. These steps are both cumulative and iterative, meaning that progression through the model is often recursive. The current draft of the present course demonstrates analysis, design, and development, yet is notably deficient in implementation and evaluation. Application of this model could take place at many levels, including individual course modules, entire units, and the course as a whole.

Lack of implementation and evaluation. Due to other obligations and the author’s suboptimal time management practices, the present course has not been deployed. Ideally, the course should be tested on a diverse sample of Americans, from which feedback could be solicited to refine the course and identify deficiencies. Even observing which modules are most frequently accessed may help identify what the course’s audience values. Performance on quizzes could also be used to infer which concepts are not being conveyed effectively. One
deficiency, which is also present in the Jump$tart Coalition’s (2015) standards, is the course’s present failure to cover the SNAP “food stamps” program, WIC, Medicaid, SSI benefits, subsidized housing, and other government programs that provide financial assistance to low-SES and underprivileged individuals and families. Misunderstanding these programs may result in individuals receiving far fewer benefits than they are eligible for.

Platform and structural constraints. While the activities in this course have empirical support, the Udemy platform makes it difficult to implement certain types of activities. For example, peer grading and discussions are missing or poorly supported. In the interests of offering the course to the widest number of people, it will be completely free. Given this structure, the instructor has chosen to not dedicate time to grading activities or providing extensive personalized feedback. In substitute, learners are asked to complete assignments and then self-assess against model examples or a rubric. While subjective, this may be a preferable solution to merely providing multiple-choice quizzes that are often viewed as boring (Bailey et al., 2015). Udemy constrains multiple-choice quizzes to having a single correct answer; radio input, text or number input, and checkbox support are all missing. While suboptimal, these constraints can be mitigated—in a quiz on credit cards, the present course has innovatively integrated a case study into this restrictive format (see Appendix C). The value the Udemy platform provides, including an intuitive interface, reliable video hosting free of advertisements, and free advertising for the course, arguably outweigh the constraints of the platform.

Conclusion

While some research has found that financial knowledge is correlated with sound financial practices (Hilgert et al., 2003), others have found that knowledge gains offer little practical significance for downstream financial behaviors (Fernandes et al., 2014), or even may
result in worse decisions (Scott, 2010). We cannot be effective just by disseminating information. However, providing “just-in-time” education and community support may help (Gross et al., 2005; Carlin & Robinson, 2012). Addressing the dilemmas of the poor from the social worker’s perspective (Karger, 2015) and conveying personal relevance (Mandell & Klein, 2007) are worthwhile pursuits. Releasing a free, online, remedial, evidence-based financial literacy course that can be used to solve particular financial issues or provide general financial education, depending on the desires of the learner, is a step toward these ends.

Hopefully, Introduction to American Personal Financial Literacy will help improve the financial behaviors of disenfranchised Americans. It can also help raise awareness of the issues for educators, while exhibiting effective instructional strategies and devices. While no financial literacy course can wholly compensate for socioeconomic and political structures that perpetuate financial inequality (English, 2014), this should not absolve educators and individuals from providing and implementing financial knowledge to correct things which are within proletarian control—such as credit card usage, saving habits, and personal investment decisions. The purpose of this course is not to provide an advanced, comprehensive financial education, but rather to present a survey of the American financial landscape, which may spur the learner to become interested in particular financial topics. In the long run, the aim is to replace feelings of anxiety and dread with fascination, a hunger to learn, and the belief that personal growth is not only possible, but is actively occurring (Mandell & Klein, 2007; Dweck, 2006).
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Appendix A

Financial Priorities Self-Assessment

In this activity, you will identify your financial priorities by writing a short paragraph, and then evaluating your paragraph against a rubric. For the activity to offer maximum benefit, you should not scroll down to view the rubric until after you have written your paragraph.

What are your financial priorities?

Write your paragraph in an outside area, such as Microsoft Word or handwritten on actual paper. Think about the following things when identifying your priorities:

Short-Term: Tracking income and expenses; Planning; Debt and interest rates

Medium-Term: Having a reliable car (if necessary); Learning to make better financial decisions; Having appropriate insurance; Saving money

Long-Term: Being financially secure; Increasing income (not necessarily by working more hours!); Providing for financial security of children (if applicable); Buying a house (possibly); After basic needs are fulfilled, saving for retirement; Investing; Contributing time and/or money to charity work or proselytism

Be specific about your financial desires (e.g., use dollar figures sometimes). After you are finished, scroll down to the rubric (below) and evaluate your paragraph.
RUBRIC FOR FINANCIAL PRIORITIES ACTIVITY

**Budgeting was identified**

Yes (2 points)

Sort of (1 point)

No (No points)

**Financial priorities include reducing debt if present**

Yes or not applicable (2 points)

Somewhat (1 point)

No (No points)

**If debt is present, reducing high-interest debt first was prioritized**

Yes or not applicable (2 points)

Somewhat (1 point)

No (No points)

**Saving money for the future was identified**

Yes (2 points)

Somewhat (1 point)

No (No points)
All three types of goals (short-term, medium-term, long-term) were included:

Yes, all three types (6 points)
Just two types (4 points)
Just one type (2 points)
None of my goals imply any timeframes (No points)

Having good health insurance (equivalent of HealthCare.gov Silver Plan or above) was identified

Yes or not applicable due to already having it (3 points)
Health insurance was identified but no specifics (2 points)
No, but other insurance was identified (1 point)
No, no insurance was mentioned (No points)

FOR THE FOLLOWING 8 ITEMS:

Increasing income, children's college fund, financial freedom, retirement saving, investing,

buying a house, making better financial decisions, charity work

Add one point for each that was present (up to 8 points)
Then, if these aren't applicable to your desires, add 1 point each: children's college fund, buying a house, charity work (up to 3 points)
Total should not exceed 8 points
Priorities were specific and measurable:

Yes, at least 3 times, specific, measurable goals were identified (5 points)

Only once or twice were specific, measurable goals identified (3 points)

No goals were specific or measurable (No points)

WHAT IS YOUR TOTAL SCORE?

30 points—highest possible score

25 points or above—great

20 points or below—this course may be especially useful to you

Now that you’ve seen the rubric, it might be useful to go back and revise your priorities paragraph. You might then want to post it on your refrigerator or make it your computer or smartphone background. This might help you keep your financial goals in mind.
Appendix B

Twitter Summaries Activity for Unit 2: Spending and Saving

In this activity, you will write short “Twitter” summaries of key topics from Unit 2, which can be an enjoyable activity that promotes critical thought (Bailey et al., 2015). These “tweets” will be framed around the following topics. In a sentence of about 30 words or fewer, you should identify a problem and offer a solution or strategy.

Pick 3 of the following 6 prompts that you find particularly interesting, and then write a short blurb about them, either on Twitter, on paper, or in a computer file.

- Identify one or more strategies to avoid overdraft fees on your bank account.
- How can a budget improve your spending habits?
- Identify a concern in calculating your net worth.
- Talk about a benefit of using cash as compared to debit or credit.
- How can having a goal motivate you to save money?
- Give advice on comparison shopping and avoiding impulse purchases.

Now, scroll down and look at the examples. There are plenty of different tweets that can be written for these prompts. Don’t worry if yours are different; instead, think about the different ways in which these questions could be answered or approached.
EXAMPLE TWITTER SUMMARIES FOR SPENDING AND SAVING ACTIVITY

*Identify one or more strategies to avoid overdraft fees on your bank account.*

Recording your purchases and balance, putting reminders on your calendar for recurring ACH drafts (e.g., bills), and keeping several hundred dollars extra in your account can help prevent overdrafts.

*How can a budget improve your spending habits?*

Making a budget shows you where your money is going. It encourages you to think carefully about your bills and look for ways to improve your spending habits.

*Identify a concern in calculating your net worth.*

Having some portion of liquid assets is important for emergencies—net worth alone does not consider liquidity. Budgets and net worth spreadsheets, together, are a powerful combination.

*Talk about a benefit of using cash as compared to debit or credit.*

You cannot be overcharged when paying with cash. You might spend less money because spending cash seems more “real” than swiping plastic.

*How can having a goal motivate you to save money?*

A goal, such as saving for a better car, reminds you that your actions will have a foreseeable and tangible payoff, which can be a powerful motivator.
Give advice on comparison shopping and avoiding impulse purchases.

Sleep on it! Look at customer reviews and similar products. Think—how much will I actually use this item? If you can’t remember a situation where you really needed this item, it may be a bad purchase.

Now that you've compared these examples to your writing, you have at least two perspectives for how to approach these questions. Now, you may be better prepared to articulate these issues to others and analyze them in personal spending and saving decisions.
Appendix C
Credit Cards Quiz and Case Study

The following quiz includes multiple choice answers which are then explained after each question. Questions below are centered, bolded, and italicized. Choices are shown in bold and explanations in italics. In the actual course, correct answers and explanations are only shown after each question is answered.

Questions 1–5 are based on the following case study.

Frank is a freshman college student. He is surviving on ramen noodles (e.g., he has low income and little spending money). He is excited that he just received his first credit card and is looking forward to eating better and dining out with friends. Frank’s credit limit is $1500; his card has an introductory 0.00% APR for 12 months, after which it increases to 22.74%.

1. Which of the following is the best advice for Frank?

A. Don’t use the credit card at all!

No, Frank needs to use the credit card and have a statement balance each month to build the Payment History portion of his credit report, which is the largest component of his credit score (35%).

B. Frank should use the credit card carefully. He can use it to build his credit, but should not spend too much more than he can repay, particularly toward the end of the 0.00% APR period.

This is true. Using the credit line for important purchases that help Fred’s health (e.g., fruits and vegetables instead of ramen noodles) or academic performance may be worthwhile, even if he
has to spend beyond his means. However, as the 0.00% APR period draws to a close, efforts
should be focused on repaying the balance.

C. Paying no interest for a year is a great deal; Frank should have fun with the money and
not worry, since he will surely have a job or money saved by the end of the year, and if not,
he can just carry a balance at 22.74% interest for a little while.

This is a bad idea because being overly optimistic about future earnings results in many people
being unable to repay credit card debt. Frank should not get started down the slippery slope of
spending beyond his means.

2. Since Frank’s APR is 0.00% for 12 months, this means he can make absolutely no
   payments for an entire year.

A. True
   Incorrect.

B. False
Correct. Even though Frank has a promotional APR, he will still have to pay the minimum
   payment each month, which is often $25.00. If he does not, the promotional APR may be void
   and a penalty APR of as high as 29.99% might begin immediately.

3. After Frank’s introductory APR ends, if he carries a balance of $1000 for a month, about
   how much interest will accrue during that month?

A. $4.37
   Incorrect. Try dividing .2274 by 12 months and then multiplying it by the balance.
B. $18.95

Correct! In one month, about $18.95 of interest would accrue on $1000 at 22.74% APR.

C. $227.40

Incorrect. You are thinking of an entire year’s interest.

D. $1018.95

Incorrect. The question asks for how much interest would accrue, which excludes the principle amount ($1000).

4. Which of the following will hurt Frank’s credit score?

A. Carrying a balance

Carrying a balance, by itself, has no impact on credit score.

B. Not using the card at all

Not using the card does not hurt your credit score. It does prevent you from building up a good monthly payment history, however.

C. Carrying a $1200 balance from month to month

Correct! This will hurt the “utilization” component of Frank’s credit score. Keeping your utilization under 30% is ideal. Utilization is typically reported only once per month, based on the statement balance.

D. Making only the minimum payment

By itself, making only the minimum payment has no negative impact on your credit score.
5. Which of the following is not a good financial practice in Frank’s situation?

A. Using a budget to manage spending

Incorrect. Budgeting helps you understand and monitor your spending.

B. Frequently checking activity and pending charges on the card issuer’s website

Incorrect. Keeping up with your card activity is a good idea.

C. Only using the credit card when Frank has enough money saved to pay for the charges

Incorrect. Only buying on credit when you have enough money saved is an excellent practice.

D. Withdrawing cash against his credit line at an ATM to help build his credit

Correct! Using your cash advance credit line incurs high fees and interest rates, and does not help your credit.

E. Using virtual account numbers (for security) when making online purchases

Incorrect. Using virtual account numbers improves your online shopping security.

F. Carrying his credit card with him, everywhere he goes

Incorrect. Carrying your credit card in your wallet makes sense, typically.

6. When should a chargeback (a.k.a., transaction dispute) be used?

A. When you need extra spending money

Incorrect. Purposely initiating frivolous chargebacks may be a financial crime, and is certainly a violation of your cardmember agreement.

B. When a merchant has billed you without authorization or delivered goods or a service that are faulty or significantly not as described

Correct! The chargeback is a critical consumer protection and one of the greatest benefits of credit cards. (And, for merchants, one of the biggest liabilities!)
C. When you find another merchant is offering the same item for a lower price
Incorrect. The merchant may offer retroactive price-match, or your card issuer may offer price-drop protection, but neither of these are related to chargebacks.

D. When you left your credit card plugged into the battery charger for too long and need to release excess voltage from the EMV chip
Incorrect. Instead of swiping, you insert your EMV “chip” card into the terminal to make a payment. This has nothing to do with chargebacks, and credit cards do not require electrical power.

7. Which of the following is not correct about credit cards?

A. Credit cards often offer valuable rewards and signup bonuses
Incorrect. This is true.

B. You can get through life without ever using a credit card
Incorrect. This is true. You could use bank debit cards, pay with cash, or buy prepaid debit cards. There are a few services that may require credit cards, but there is always another way.

C. Having your credit card stolen is better than having your debit card stolen
Incorrect. This is true. When a credit card is stolen, you are open to LESS liability than when a debit card is stolen. You should always report a lost or stolen card to the card issuer as soon as possible.

D. Credit card issuers are benevolent and provide their services strictly for the benefit of the public
Correct! This is false. Credit card issuers make billions off customers who carry balances and pay interest. They also make money off interchange fees (“swipe” fees).
E. Having a credit card and making on-time payments helps build your credit report and improves your credit score

*Incorrect. This is true.*

F. Credit cards offer lower interest rates than payday loans

*Incorrect. This is true.*

8. **What is the best way to use a credit card without ever paying interest?**

A. Get a credit card, rack up a lot of charges, and never pay the balance or interest

*Incorrect. This will ruin your credit and may lead to the card issuer pursuing legal action, such as a judgment to garnish your wages.*

B. Each month, pay the statement balance in full before the payment due date

*Correct! If you do this every month, you’ll never pay a cent of interest.*

C. Get your mom to co-sign on the card and then leave her stuck with the bill

*Incorrect. This is a horrible way to treat your mom.*

D. Cross out sections of the credit card agreement pertaining to interest. Then, sign and return the agreement to the card issuer. If they accept it, you never have to pay interest and can sue them if they try to collect it.

*Incorrect. While such a case may have legal merit, you can expect a lot of issues and resistance with this strategy.*

E. Steal people’s credit cards and rack up charges. You are just sticking it to the man, since the credit card issuer is liable—not the card holder.

*Incorrect. You would be committing felony crimes by stealing and using others’ credit cards.*
F. Get a credit card with a 0.00% promotional APR, and then do a balance transfer to another card with a 0.00% APR after the promotion expires. Rinse and repeat.

Incorrect. While this is not illegal and has some merits, you still have to pay the balance eventually, and you will incur balance transfer fees each time you transfer the balance, which are typically 3–4% of the entire balance. (Occasionally, Chase Bank still offers no-fee balance transfers with 0.00% APR for 12 or more months through their “Slate” card.)

9. Credit cards can be very dangerous and can be a slippery slope.

A. True

Correct. Many people end up deep in debt with no way out due to credit cards. Reflection and self-knowledge is important. Refusing to have or use credit cards may be a sophisticated and reasonable decision.

B. False

Incorrect. While some people may never have issues with responsible credit card use, they certainly are not representative of everyone.

10. Having over 15 credit cards is very bad for your credit score.

A. True

Incorrect.

B. False

Correct! Having more credit cards is good for many factors of your report, such as payment history and average account age. While credit inquiries hurt your credit score, this effect largely disappears after 6 months, and completely disappears after 2 years.