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Improving Americans' Financial Literacy:

Educational Tools Work

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Education Tools Work

Since the Great Recession began, there has been increased talk about the need to teach Americans—especially students in the classroom—how to be more financially savvy. There has been action too. There is no shortage of organizations that want to be involved – from the President's Advisory Council on Financial Capability to venture capitalists, from the NFL to payment card networks and financial institutions.

Many of these businesses and organizations advocate the use of online games and educational tools to help Americans increase their financial knowledge and change their financial behavior. But can visiting a website, playing a financial game, or using an online education tool really change the way someone behaves in the real world?

A review of current literature suggests the answer from the John D. and Catherine T. MacArthur Foundation and financial literacy researchers in the United States and elsewhere is an unqualified, "Yes."

Are We Really That Financially Illiterate?

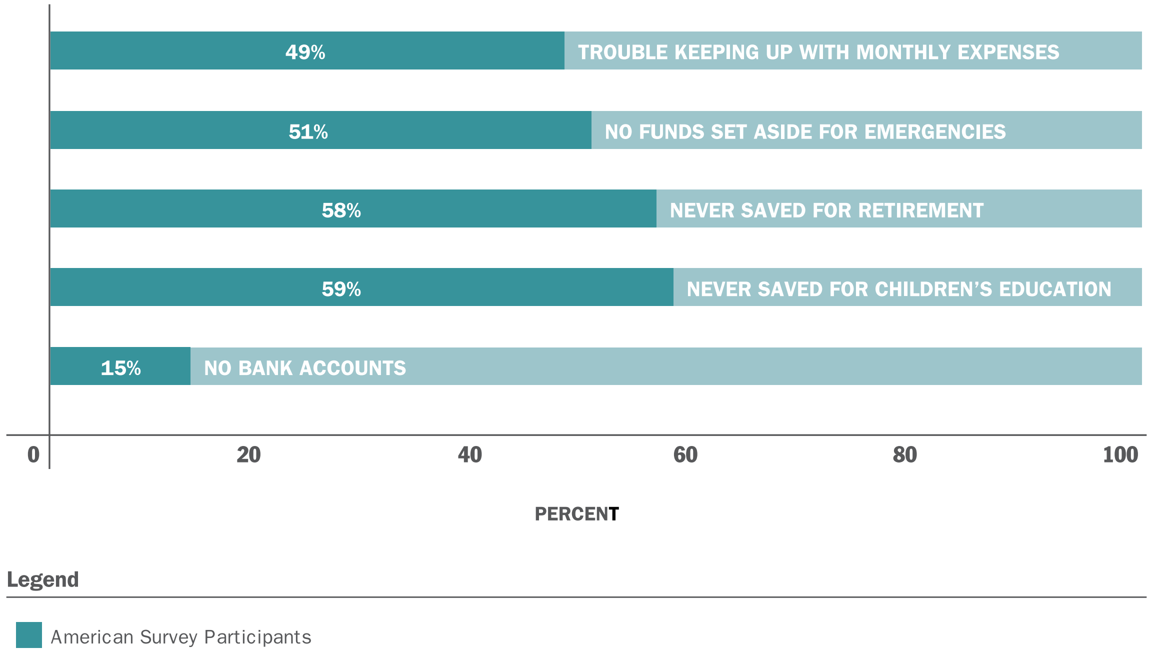
The work of these organizations is based on the hypothesis that Americans need help understanding increasingly complex financial concepts and products; that there is a problem if we do not catch on pretty soon; and that an online intervention can help. But are we really that financially illiterate?

Yes. We are. The need for financial literacy in the United States is widespread, even among many of America's highest-paid, most-celebrated stars and athletes. According to a 2009 report released by Sports Illustrated, a majority of NFL, NBA and MLB players are bankrupt or facing financial pressure within just a few years of leaving their leagues, and many active players face financial challenges as well (Torre, 2011).

In fact, a host of sources reveal that many Americans lack a basic understanding of rudimentary financial concepts, principles and practices. Not only did this widespread lack of knowledge contribute to massive consumer overleveraging, among other practices, it contributed to the Great Recession (Harnish, 2010).

There are other troubling trends related to Americans' lack of financial literacy (U.S. Department of Treasury, 2009).

U.S. Department of Treasury Statistics (2009):



- Almost half of Americans report having trouble keeping up with monthly expenses.
- 51 percent of Americans say they do not have sufficient funds set aside to cover three months of expenses in case of sickness, job loss or another economic downturn.
- 58 percent have never tried to figure out how much they need to save for retirement.
- 59 percent have nothing saved for their children's education.
- 15 percent of Americans are "unbanked," which means they lack a checking, savings, money market, or any other type of bank account.

Just as troubling is the finding from a Harris Interactive Inc. poll conducted for the National Foundation for Credit Counseling that almost two years into the credit crisis, 37 percent of Americans admitted to still not knowing their credit score, and nearly two-thirds of Americans had not downloaded their credit report in the past year, even though it is free to do so (Harris, 2009). This is unfortunate, because as a result of the havoc wreaked by the housing market crisis and job losses of the last few years, to get the best interest rates and lowest fees, Americans today need a credit score of 740 or above, and few Americans have a score that high (Weston, 2011).

Additionally, financial illiteracy creates problems beyond these savings and debt management challenges. Market efficiency depends on financially literate consumers. Educated consumers are better able to demand products that meet their short-term and long-term financial needs. This demand, in turn, forces providers to compete to create better products with characteristics that respond to these demands (Braunstein and Welch, 2002).

Finally, the cost of poor financial decision-making creates a larger social cost. "Low levels of financial literacy may lead to poor health, decreased quality of life and lower college attainment levels. Plus, the cost of poor financial decision-making and planning often gets shifted to other members of the community, state and nation through higher prices for financial products, diversion of economic resources and greater use of public 'safety net' programs" (Harnish, 2010).

While much of the nation's focus has been on the financial challenges facing adult consumers, Laura Levine, Executive Director of the Jump$tart Coalition for Personal Financial Literacy, says it is not just adults who need help.

"The lack of financial knowledge and ability among America's youth is also a serious problem that is not going to improve on its own," she notes. "Additional emphasis needs to be placed on teaching personal finance concepts in schools, to prepare young people for their lives as independent consumers rather than waiting to offer remedial financial education after they have begun to make mistakes (Laura Levine, Executive Director, Jump$tart Coalition for Personal Financial Literacy, 2011)."

Online Interventions Can Change Consumer Behavior

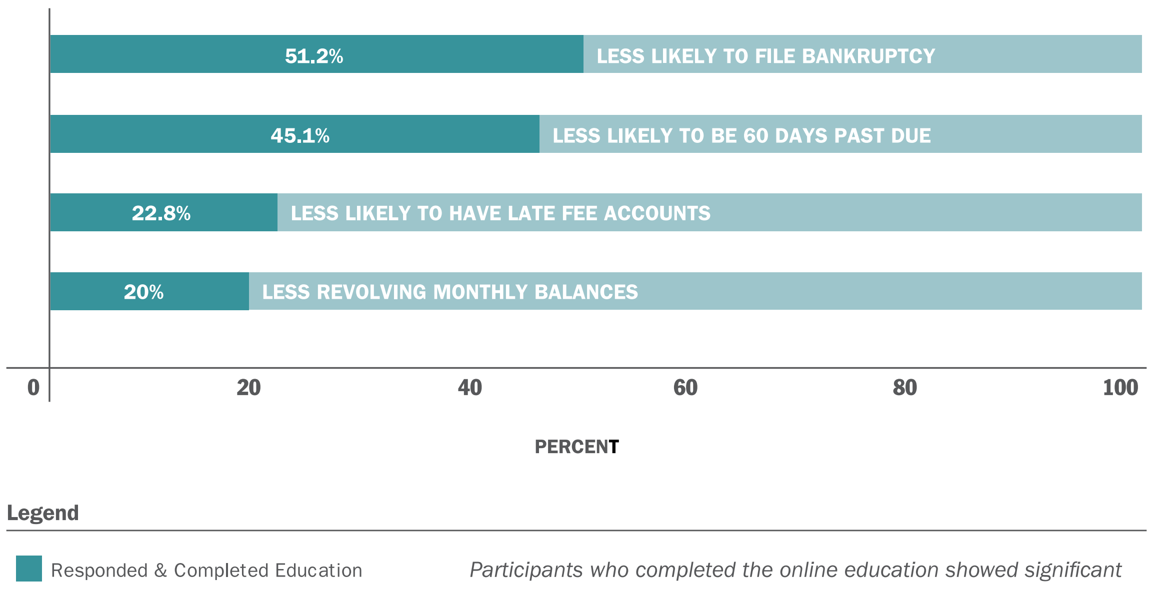
In the face of rising consumer debt loads and growing delinquencies, financial institutions and other organizations have become increasingly interested in determining whether educational tools—especially online tools—can increase consumer knowledge and encourage consumers to change their financial behavior.

New Wells Fargo Case Study:
Online Lessons Make a Difference for First-time Cardholders

A brand new assessment released in March 2011 by Wells Fargo, in partnership with Visa Inc., shows dramatic directional results from early credit education intervention. All new college student credit cardholders were mailed an offer to participate in an online credit education program and directed to a website with a distinct log-in. The internet site contains two lessons, as well as quizzes designed to increase awareness of the importance of building solid credit. The site is based on Visa Inc.'s financial literacy program: *Practical Money Skills for Life*. The purpose of this program is twofold: to improve cardholders' understanding of responsible borrowing and credit management, and to demonstrate the effects of this education on their credit behavior.

In September 2010 the data was analyzed from accounts booked in the first half of 2009 and compared consumers who completed the online education program (3,564 consumers completed the lessons), to those who did not. A variety of metrics were assessed, from bankruptcies and spending changes to use of revolving credit.

Wells Fargo Case Study Statistics (2011):



Participants who completed the online education showed significant improvement in credit responsibility over the control group.

- Customers who completed the online education program demonstrated a 51.2 percent improvement in bankruptcy rates compared to customers who did not log on and go through the educational program.
- The 60-day delinquency rate for the customers who completed the education program was 45.1 percent better than those who didn't complete the program.
- The increase in FICO scores for the customers who completed the program was 240 percent better than the increase for those who did not log on.
- The percentage of cardholder accounts with a late fee was 22.8 percent less for those who completed the education program than those who did not.
- Average revolving monthly balances among online-education participants was 20 percent less than that of those who didn't take the lessons, even though use of their credit cards increased, pointing to more responsible credit use among this group.

These striking results indicate that this education intervention has a significant impact on behavior (Wells Fargo, 2011). The results are consistent with an earlier study conducted by Wells Fargo, also using Visa Inc.'s *Practical Money Skills for Life* credit education program. The study included a randomly selected set of 78,000 new college student credit cardholders and utilized a control group of 3,000 first time cardholders. The results showed that the students who responded to the direct-mail piece and completed the two lessons did remarkably better on a number of credit related metrics including their late fee instances (42.6 percent fewer), over-limit charges (42.6 percent fewer) and kept lower revolving balances (26.5 percent lower) than students in the control group (Wells Fargo, 2005).

One reason educational, online interventions can lead to such dramatic changes in behavior as seen in the Wells Fargo case study has to do with how people learn in an online environment, especially when that environment includes games, other competitive opportunities or potential interactions with peers.

The John D. and Catherine T. MacArthur Foundation established one of the most extensive studies of American youth online culture, "Living and Learning with New Media." This research shows that today's young people are engaged in social and recreational activities that can be a springboard for learning. "Digital media allows young people to be a part of specialized knowledge groups. They can dive into a topic or a talent and develop and share their growing expertise with groups of teens and adults from around the country or world. This is a unique feature of today's media environment," said Mimi Ito, a professor at the University of California-Irvine, and lead author of the "Living and Learning with New Media" study (MacArthur Foundation, 2009).

Many of the MacArthur Foundation findings support earlier research on how people learn, including play as a form of learning and the effectiveness of peer-based learning. In fact, "the [play-related] theory of learning in good video games fits better with the modern, high-technology, global world today's youth live in than do the theories and practices of learning what they see in school," says James Paul Gee, a leading online-education researcher, in his paper, "What Video Games Have to Teach Us About Learning and Literacy" (Gee, 2003).

Children have always learned through play, researchers say, and today, digital media has resulted in increasingly more sophisticated games that can engage youth while at the same time encouraging learning. "Game designers really understand the problem of engagement and its close connection to feedback, rewards, motivation and goal setting," said Katie Salen, the lead designer of New York City's "Quest to Learn," the nation's first public school based on principles of game design, and director of the nonprofit "Institute of Play," of which the school is a part. These components of feedback, rewards, motivation and goal setting are key characteristics of the way people learn in natural settings (MacArthur Foundation, 2009).

Game-Based Learning: What Is It, And How Does It Work?

Research from the University of Florida, among others, also provides evidence that online interventions, especially games, work. The University of Florida research further demonstrates that students can take what they learn from games and apply it in other environments, including standardized tests (Riedel, 2008).

According to the study, "over an 18-week period, students playing the educational video games demonstrated higher gains on district benchmark exams than students not playing the games. On average, students in the experimental group made gains of 8.07 points (out of 25), while students in the control group made gains of 3.74 points" (Riedel, 2008).

One reason for the greater gains is that games provide immediate feedback when things go wrong and rewards when they do not. Recognizing the power of this type of educational engagement, financial organizations are moving to change the way they deliver information to consumers.

In 2010, Visa Inc., together with the NFL and NFL Players, re-launched its six-year-old *Financial Football* game to help students improve their financial literacy skills through greater engagement with the game and its iterative, competitive processes. When participating in the *Financial Football* game, students must correctly answer ability-appropriate financial questions to gain yardage and score both touchdowns and field goals. A wrong answer results in lost yardage, turnovers and sacks—all of which benefit the opposing team rather than the student.

Super Bowl XLIV "Most Valuable Player" Drew Brees along with other NFL players and representatives have joined the effort to promote the program.

Among 29 other states, the program was presented to schools in West Virginia in partnership with the office of the State Treasurer, John Perdue. The State Treasurer's office staff piloted the *Financial Football* game with teachers in 17 high schools before introducing the game and related curriculum statewide. When students in classrooms using the *Financial Football* program were tested prior to playing the game, 53 percent answered half or more of the basic financial questions about common financial tools, such as checking accounts, incorrectly. By the end of their online experience, 92 percent of the students correctly answered such questions, as well as more sophisticated questions, about interest rates and risk. This was the result of having been exposed to the information repeatedly as they attempted to improve their scores in the game (Treasurer, State of West Virginia, 2010).

Researcher Jessica Trybus, New Media Institute's resident Game-based Learning and Communications Guru and Director of Edutainment for Carnegie Mellon University's Entertainment Technology Center, points out that this built-in, iterative learning process is what makes games enjoyable.

As Brees said, "Kids need to learn how to make smart money-management decisions early in life. Financial Football is a great way to get students interested in personal finance and give them a financial playbook they can use the rest of their lives (Treasurer, State of Mississippi, 2010)."

"To progress in a game is to learn; when we are actively engaged with a game, our minds are experiencing the pleasure of grappling with, and coming to understand, a new system," says Trybus. "The same factors that make well-designed games highly motivating also make them ideal learning environments," Trybus adds, noting, "When education or training feels dull, we are not being engaged and motivated. In other words, we're not really learning. 'Learning' doesn't mean rote memorization—it means acquiring the skills and thought processes needed to respond appropriately under pressure, in a variety of situations" (Trybus, 2011).

This is not a new idea. Even Einstein once noted, "Learning is experience. Everything else is just information." And, as Trybus notes, there is that Chinese proverb that states: "Tell me, and I'll forget. Show me, and I may remember. Involve me, and I'll understand" (Trybus, 2011). Game-based learning tools move individuals from passive listening to the type of active problem solving needed to tackle financial issues head-on.

Online Learning Works for Financial Literacy

In today's growing digital world, new tools are required to help consumers and students make good decisions about increasingly complex financial issues. Online learning works, and as schools partnering with online program providers are finding, the tools are easily integrated into the classroom. There is every indication that the growing body of research supporting the effectiveness of learning tools will continue expanding, further affirming the value of online programs. And, there is every indication that participants do become more financially savvy, and as a result are better consumers of financial programs, tools and services.

Authors:

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References:

Braunstein, Sandra and Carolyn Welch. "Financial Literacy: An Overview of Practice, Research & Policy," Federal Reserve Bulletin, November 2002. http://www. federalreserve.gov/pubs/bulletin/2002/1102lead.pdf

Gee, James Paul, "What Video Games Have to Teach Us About Learning and Literacy," New York, Palgrave Macmillan, 2003. (A list of Gee's principles is available online: http://mason.gmu.edu/~lsmithg/jamespaulgee2).

Harnish, Thomas L., "Boosting Financial Literacy in America: A Role for State Colleges and Universities" Perspectives, American Association of State Colleges and Universities, Fall 2010.

Harris Interactive Inc. Public Relations Research, "The 2009 Consumer Financial Literacy Survey Topline Report & Data Sheet". http://www.nfcc.org/newsroom/FinancialLiteracy/files/2009FinancialLiteracySurvey.pdf

Levine, Laura, (Personal Interview, March 14, 2011).

MacArthur Foundation, "Living and Learning with New Media," www.mscfound.org, MIT Press, June 2009.

Torre, Pablo S. Sports Illustrated: http://sportsillustrated.cnn.com/vault/article/magazine/MAG1153364/index.htm, accessed March 10, 2011.

Treasurer, State of Mississippi. "Saints Drew Brees, Treasurer Tate Reeves and Visa Collaborate to Launch Statewide Rollout of Financial Football in Mississippi." September 2010.

Treasurer, State of West Virginia (2010). [Results of pre-testing and post-testing of high schools participating in Financial Football]. Unpublished raw data.

Treasury, U.S. Department of: "Financial Capability in the United States," Financial Industry Regulatory Authority/U.S. Department of Treasury, 2009.

Riedel, Chris. "UCF Study Finds Video Games Increase Student Achievement." The Journal: Transforming Education Through Technology, 2008.

Trybus, Jessica, New Media Institute, http://www.newmedia.org/game-based-learning--what-it-is-why-it-works-and-where-its-going.html, accessed March 2011.

Wells Fargo Case Study Statistics (2005). Unpublished raw data.

Wells Fargo (2011). [Metrics from credit education study, January-June 2009] Unpublished raw data.

Weston, Liz Pulliam. "Raise Your Credit Score to 740." MSN Money. http://articles.moneycentral.msn.com/Banking/YourCreditRating/weston-raise-your-credit-score-to-740.aspx, accessed March 11, 2011.