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2011 Webinar Series 
June 28, 2011 

Harnessing the Power of Technology to Enhance 
Financial Literacy & Personal Financial Well-Being
Harnessing the Power of Technology to Enhance Financial Literacy Education and Personal Financial Well-Being

Wendy L. Way, Professor
School of Human Ecology
University of Wisconsin-Madison
Center for Financial Security Webinar
June 28, 2011
The research reported herein was performed pursuant to a grant from the U.S. Social Security Administration (SSA) funded as part of the Financial Literacy Research Consortium.

The opinions and conclusions expressed are solely those of the author(s) and do not represent the opinions or policy of SSA or any agency of the Federal Government or of the University of Wisconsin System, including Center for Financial Security.
Background: Project Need

- Expanding interest in financial education – often with presumption that it will lead to improved financial behavior
- Growing number of technology-based tools for financial education – but educators not well prepared to use them
- Little attention given to WHY technology-based tools/strategies might be expected to improve financial literacy or financial well-being
- Need to develop guidelines for theory-based practice and further research re: the role of technology in financial education and financial behavior
Project Purposes

• Identify kinds of technology-based resources/tools available to support personal finance education
• Review theories of human behavior and their relevance to personal finance education research and development
• Examine educational theory about how technology-based resources can support personal finance teaching and learning
• Develop a theoretically grounded model to inform future research and practice in financial literacy education
Types of Online Financial Education Resources and Tools

• **Financial Information** – e.g., MyMoney.gov (collection of financial information, tools, & resources from government agencies; targeted by group and life events); FederalReserveEducation.org (personal finance resources for the general public, students, teachers)

• **Internet Forums** – e.g., MyKmart.com (smart shopping, layaway); Healthboards.com (health insurance); Wisebread.com (frugal living, personal finance)

• **Internet Blogs** – e.g., Dailyworth.com (budgeting, earning, saving, investing, spending)

• **Financial Management Tools** – e.g., Mint.com (free -tracks expenditures & makes recommendations); Mvelopes (fee-based budgeting, bill pay, forums & chat)
Online Games to Teach About Money – Identified as ‘Tops’

- Financial Football - VISA
- Celebrity Calamity – D2D
- Bad Credit Hotel – US Treasury
- The Great Piggy Bank Adventure – Disney & T. Rowe Price
- Planet Orange - IngDirect
- Reality Check – Jump$tart Coalition
- (CBS MoneyWatch.com, September 21, 2010)
How to Choose?

• Numerous frameworks available from both human behavior and education literatures

• Suggest points of intervention for financial education using an ecological perspective b/c behavior is influenced by factors at individual, interpersonal, community/organization, and system/policy levels

• May be complementary, suggesting use of more than one at a time
Sample Behavior Theories by Level of Intervention

**Individual**: Theory of Reasoned Action/Theory of Planned Behavior/Integrated Behavior Model

Keys to behavior:

- Beliefs about likely outcomes of behavior and how close ‘others’ would feel about it
- Knowledge & skills needed to perform the behavior
- Salience of the behavior to the individual
- Confidence in ability to perform behavior despite barriers
- Experience performing the behavior (habit)
Sample Behavior Theories by Level of Intervention

**Interpersonal:** Social Networks and Social Support (e.g., Social Capital)

Social groups (e.g., family, peers, online networks) can provide social influence, social undermining, or social support.

Social support = emotional (caring), instrumental (tangible aid), informational (advice, new info), appraisal (info for self-appraisal)
Sample Behavior Theories by Level of Intervention

Community/Organization: Diffusion of Innovations
New behavior most likely to be adopted is: advantageous compared to old; compatible with needs, values; easy to adopt; testable first; visible to others

Systems/Policy: Social Marketing
Marketing principles (highlighting benefits, payoff, convenience, message match) can influence adoption of socially beneficial behavior
Affordances of Technology: Access and Motivation

• May expand access to personal finance education (or not) by providing flexibility in how, when, and where learning occurs (mode, pace, place)

• May support motivation to learn (or not) by providing a sense of competence, autonomy, and belongingness (self-determination) as well as ‘flow’ or immersion/fun
Affordances of Technology: Learning Tasks and Processes

- An important distinction: *learning from* versus *learning with* technology
- ‘Learning with’ perspective more consistent with constructivist learning and human behavior theories
Affordances of Technology: Learning Tasks and Processes

• ‘Learning with’ perspective characterized by learning activities that are: more authentic, less formal, involve others, provide for reflection, and give learners control.

• Games and simulations offer special potential for developing genuine financial management expertise by requiring important knowledge/skills, but also nurturing situated understanding, experimenting with powerful identities, and developing shared values.
Access and Vulnerability

• Lack of access to technology may create/reinforce financial vulnerability

• Access = not just having appropriate hardware but also capacity to make meaningful use of it
  – Knowing how define information needs and identify and evaluate internet-based financial information
Access and Vulnerability

- Having access to learning opportunities (including materials) that support diverse needs – age/gender/life cycle stage, language and literacy differences, cultural bg, learning styles, web accessibility guidelines

- Having encouragement and support for informal (self-directed) and not just educator-directed learning

- Having access to tech savvy personal finance educators
Sample Recommendations for Practice

• Select technology that nurture’s positive financial behavior and not just knowledge acquisition

• Target beliefs as well as knowledge, address potential barriers to positive financial behavior; provide actual practice in the behaviors.

• Use ‘learning with’ approaches that foster reflection and link to action; tools that engage, nurture competence and autonomy.

• Consider the potential for self-directed as well as educator directed learning in designing PF education resources and strategies
Recommendations for Practice, con’t

• Use technology to design/implement educational interventions beyond the individual: build supportive social networks, spread innovations, market powerful ideas.

• Design & evaluate technology-based tools using a theory-based (WHY) perspective focused on learning and behavior
Sample Questions – Does the Resource....

1. Support a behavior-focused intervention? Which kind(s)?
2. Enhance access to learning via flexibility – place, pace, mode of instruction?
3. Enhance motivation to learn via competence, autonomy, belongingness, immersion/fun?
4. Reflect ‘learning with’ perspective – learner control, involvement with others, practice, reflection?
5. Foster financial expertise – valuable knowledge, skills, patterns of reasoning, values, personal identities?
6. Address needs of learners (e.g., gender, age, cultural bg)?
7. Support self-directed learning?
Recommendations for Further Research

• Expand testing of growing body of PF education tools, resources, strategies with diverse audiences in a variety of contexts

• Create a ‘what works’ clearinghouse of theory- and research-based evidence about PF education tools, resources, strategies
Recommendations for Further Research

• Investigate how social media are contributing to self-directed and incidental learning about financial matters

• Examine how educators are learning to use technology-based financial education tools and strategies
Wendy L. Way  
Professor and Assoc. Dean for Undergraduate and Graduate Academic Programs  
School of Human Ecology  
University of Wisconsin-Madison  
2412 Sterling Hall  
475 N Charter St  
Madison, WI 53706  
(608) 262-1963  
wlway@wisc.edu  

http://cfs.wisc.edu/
Discussant

- Nick Maynard, Director of Innovation, Doorways 2 Dreams Fund (D2D)
Library of games

– Celebrity Calamity: Manage credit & debt
– Groove Nation: Dance budget game
– Bite Club: Vampire retirement savings
– FarmBlitz: Manage resources to build savings
– Refund Rush: Make the most of a tax refund
For More Information

Nick Maynard
Doorways to Dreams Fund (D2D)
nmaynard@d2dfund.org

www.d2dfund.org
617.541.9066
Discussant

• Bruce Spates, Associate Director, FINRA Investor Education
Moneytopia

Immersive Simulation Game
The mission of the FINRA Investor Education Foundation is to provide underserved Americans with the knowledge, skills and tools necessary for financial success throughout life.

www.finrafoundation.org
Why a Game-Based Immersive Simulation?

2005 Investor Literacy Research Study
Military Personnel and Spouses

Not at all knowledgeable

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<td>Over 40</td>
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Basic Market Knowledge test passing rate

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<tr>
<td>Over 40</td>
<td>35%</td>
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FINRA Foundation Military Personnel and Spouses Investor Literacy Report of Research Findings, July 19 2005
Why a Game-Based Immersive Simulation

- 90 million “gamers” in the U.S. from 15 to 35.
- 80% of all people under 35 have played PC or online games
- Appeals to the target demographic—engaging & fun!
- “Learning by doing” instructional model
- Real-world experiences with real-world consequences
- Ability for player to practice managing finances in a “safe” environment
When to Choose an Immersive Simulation

1. For developing an understanding of big ideas and concepts
2. For dealing with time and scale—to speed up results of an action that might actually take one or more lifetimes to play out
3. For situations where people need practice in decision-making before they face the situation in real life
4. For taking people to a time or place that they are unable or unlikely to experience directly
5. For situations in which people need practice performing a process in a safe environment before performing it in the real environment
Moneytopia: An Immersive Simulation Case Study
Instructional Features: Learner-Centric

Customizable and learner-centric
Instructional Features: Decision-Oriented

Problem-based design
Multi-path decision making
Instructional Features: Prescriptive

Mentor-based
Self-directed learning
Rewards
Instructional Features: Intrinsic Feedback

Decisions lead to consequences

The following items have been repossessed:
- Home decor $250.00
- Sound system $40.00
- Stuff $50.00
- Furniture $250.00
- Television $150.00
- Computer $110.00
- Telephone $75.00
- Car $67.50
- Other $16.00

You owe: $9,049.16
Collected: $982.48
You still owe more money.
Game Play Features

- Micro-Games
- Financial Dashboard
- Dream Machine
- Competition
- Consequences
- Win & Replay
Moneytopia Survey Feedback

• 73% Rated Moneytopia Good to Excellent
• 68% Would Play Moneytopia Again
• 60% Will take steps to improve how they manage their finances based on their experience with Moneytopia
• 82% Would recommend Moneytopia to others
Moneytopia Survey Feedback

“LOVED the realistic examples and I think it is helpful for the younger generation to see it in a form they use a lot - games! It brings reality closer without the actual experience. May prevent some stupid decisions for some players in real life!”

“It is very informative in a fun way, shows you how your choices have an effect on your finances, I lost $40K at one time!”

“I found it engaging and fun... and a little addictive!”

“For someone who is not even a gamer, this was a wonderful experience. It is a fun test of your financial knowledge and you actually end up paying attention to what you are doing with your money during the game. It is very interesting and I will play again!”
Financial Capability Study

Dimensions:

- Spending vs. Saving
- No “Rainy Day” Fund
- Non-Bank Borrowing
- Financial Literacy
- Comparison Shopping

www.usfinancialcapability.org
Play Moneytopia Today!

www.SaveAndInvest.org/Moneytopia
Question and Answer?

Thank You for your participation in the Center for Financial Security 2011 Webinar Series. For more information: http://cfs.wisc.edu
Upcoming Webinar

Tuesday, August, 16th
1pm - 2pm CDT / 2pm - 3pm EDT

Integrating Financial Education into Traditional Family Support Services

Kristi Slack, Professor and Associate Director,
School of Social Work,
University of Wisconsin-Madison

For more information on the 2011 CFS Webinar Series: http://cfs.wisc.edu