

# The Gamification Effect

## Using Fun to Build Financial Security



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COMMONWEALTH

Using a game-based approach, new financial-education and savings programs are putting the power to save in the palm of users' hands and reinforcing and rewarding smart savings decisions.

### Introduction

Managing personal finances can be stressful, intimidating, and at times simply mystifying. What if gaining financial knowledge, building self-confidence, and taking positive financial action could be as fun and engaging as playing a video game? At Commonwealth, we believe that tools that use fun to increase people's motivation to engage with financial topics, reduce stress and anxiety surrounding financial decision making, and lead to real-world action taking can improve the financial security and opportunity of financially vulnerable New Englanders. This article describes how Commonwealth has applied video games and gamified tools to financial concepts and behaviors. It discusses what we learned and concludes with an invitation to the financial industry and community practitioners to engage in deep conversations about how these lessons can be applied more broadly.

### Why Use Games?

With hundreds of millions of users, casual video games like *Angry Birds* and *Candy Crush* are hugely popular among a wide variety of demographics and offer an opportunity to engage financially vulnerable people. Casual video games are easy to learn, addictive, available on demand, and allow for short periods of play. Thanks to widely used digital technologies like smartphones, video games can be made available at scale more cost-effectively than traditional financial-education workshop models.

Such workshops can lack excitement and are typically offered at times and in contexts removed from those in which people make financial decisions. They therefore have shown limited effectiveness in terms of attracting and retaining participants and improving financial-capability outcomes.<sup>1</sup> Video games address some of the shortcomings of traditional financial education by acting as appealing, low-stress entryways that motivate users to engage with educational experiences. It is possible to embed opportunities for playing the game (gameplay) on the computers and mobile devices that players already use to manage their financial lives and easily connect to platforms for taking action.

### Developing and Testing Financial Entertainment Video Games

Building off of these insights, we at Commonwealth set out to create our own games to incorporate basic financial concepts into fun and exciting game experiences. Today our suite of Financial Entertainment video games includes six titles that cover topics ranging from budgeting and debt management to saving for retirement and avoiding financial fraud.<sup>2</sup> We worked on the game designs alongside low- and moderate-income New Englanders, who joined us at three key milestones during the development of each game to give feedback on the gameplay experience. We also conducted preliminary efficacy testing with these and additional users.

Across multiple contexts, Financial Entertainment games have been effective at engaging players to build financial capability and confidence in a fun and stress-free environment. The games have been used to drive financial-capability outcomes for financial institutions, raise financial awareness among military families and community-college students through game tournaments, and encourage sound financial habits among high-school students through Boston's youth summer jobs program. Gameplay in K–12 classrooms took off organically as teachers used the games in many different ways to support classroom education, including as a main classroom activity with pre- and post-tests, as a contextualized activity incorporated into a lesson plan, and as an after-lesson activity to keep students engaged in learning after they have completed the main lesson. Commonwealth's Financial Entertainment game suite has attracted 200,000 users and generated over 500,000 gameplays since its launch in 2010, and over 20,000 mobile game downloads since 2013.

Commonwealth set out to evaluate the potential connection between video games and action taking with two initial studies. First, we conducted a randomized comparison trial of the debt-management game *Farm Blitz*, a match-three puzzle game in which players need to match like vegetables in a row quickly so they can earn money to pay down debt, manage cash on hand, and invest in their future as they advance to higher levels. The *Farm Blitz* study measured the impact of gameplay—as compared to reading traditional financial-education materials—on gains in knowledge and uptake of a savings opportunity. Both groups achieved statistically significant gains from the baseline on measures of confidence and knowledge, but savings action taking was slightly higher for the video game group. Thinking about magnifying impact, a video game is more appealing than reading a pamphlet, and thus video games are better able to attract a larger target population to engage with financial-education content.

In another study, we partnered with office-supply company Staples to customize and test a version of our *Bite Club* retirement-planning game. As owners of a vampire “day club,” *Bite Club* players have to keep their customers happy by clicking and moving them around to give them what they want. Between rounds, players must pay down debt and save for retirement. During the test, the customized game connected to Staples’s 401(k) and benefit platform and allowed players to take action in their accounts during play. During one test using a single direct-mail piece promoting the video game to newly eligible participants, Staples observed an 11 percent rate of positive action taking in those recipients’ 401(k) accounts.

Up—that use gamification to help users actively improve their financial stability and opportunity in a fun context.

### Gamifying Emergency Savings with *SavingsQuest*

Motivated by the findings of our initial research and inspired by the success of gamified digital health and fitness tools like Fitbit and the *Zombies, Run!* app, Commonwealth’s next step was to develop an app that would create a self-contained system for motivating and rewarding consumers for ongoing real-world savings actions. *SavingsQuest* is a tool that uses challenges, badges (digital awards offered for completing certain actions, like saving \$5 at a time), and messaging



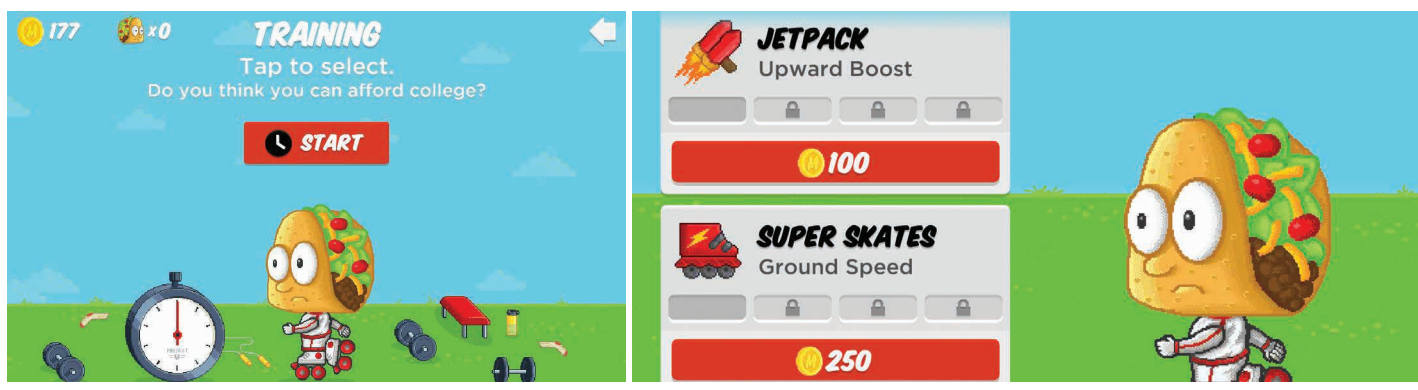
These two research studies provided initial evidence that games can foster learning and prime individuals to take active roles in their own financial planning.<sup>3</sup> The results in turn led Commonwealth to think about how we might further integrate fun financial tools into contexts in which they could create sustained behavior change and lead to improved longer-term financial outcomes.

### Gamifying Real-World Tools

One way to further harness the power of games is through “gamification”—the application of game mechanics in a manner that intrinsically motivates people toward an action or behavior. Gamified tools connect in-game rewards with activity completed outside of the game. A recent example of gamification is *Pokémon GO*, a mobile game that surged in popularity during the summer of 2016. Using a mobile device’s GPS to identify a player’s location, *Pokémon GO* allows users to find, battle, and capture creatures that appear on the screen as if they were in the same location as the player. With over 100 million downloads in its first month and more daily active users at its peak than Twitter, the game’s popularity speaks to an appetite for tools that enable users to cross boundaries and connect their virtual and actual worlds. We created two digital tools—*SavingsQuest* and *Ramp It*

to motivate savings transfers connected to live financial products, such as between a checking and savings account.<sup>4</sup> Unlike traditional savings activity, *SavingsQuest* offers a fun and dynamic interface that delivers instant gratification for every save with an animated dancing pig. These elements combine to encourage small and first-time savers to start saving—even if only a penny at a time—toward the goal of having \$250 (or any other chosen amount of savings) set aside for an emergency.

A tool like *SavingsQuest* helps users get started on the path to financial security. In our pilot with a prepaid card company, *SavingsQuest* users saved on average 25 percent more frequently than other cardholders. This is no small achievement for households that do not have the savings to manage unexpected expenses—a common crisis many New Englanders face. Across the region, the percentage of households without sufficient liquid assets to subsist at the poverty level for three months in the absence of income ranges from 21 percent in New Hampshire to over 46 percent in Maine.<sup>5</sup> In Vermont, nearly 30 percent of households do not have a savings account.<sup>6</sup> Gamified tools like *SavingsQuest* transform the typical savings experience into something more appealing and can engage and motivate users to take action toward their goals for changing their lives in the real world.



## Ramping Up to College Financial Readiness

Beyond emergency saving, we also sought to bring the principles of gamification to bear on the challenge of improving college financial readiness. Low awareness and capability around paying for college can not only stifle educational attainment but also saddle students with excessive debt and leave them on unstable financial footing. In Maine, for example, college students graduated in 2014 with over \$30,000 in student loan debt, on average—one of the highest state-level rates in the nation—and over 10 percent of borrowers entering repayment in 2012 went into default.<sup>7</sup> More importantly, nationwide educational access and success are unevenly distributed. College-ready students of color and students from lower-income backgrounds attend college at much lower rates than white or higher-income students of comparable academic ability.<sup>8</sup>

Many resources already exist to help young people lay out a plan to pay for college. While readily available, these resources can intimidate students and, in many cases, fail to engage them. Rather than creating additional tools and materials, we believe it makes sense to tackle the challenge of how to get students to engage with existing high-quality resources. With the support of the Treasury Department's Financial Empowerment Innovation Fund, we developed a gamified application called *Ramp It Up* to do just that. *Ramp It Up* is a game in which players tap their screen to enable their character to fly through the air and avoid obstacles while collecting as many coins as possible. Players use the coins to unlock new abilities and levels. Between rounds, the game requires players to navigate and interact with college- and career-readiness tools—creating a Free Application for Federal Student Aid account, for instance, or searching for scholarships—in order to advance and unlock certain features within the game.<sup>9</sup> As they engage in these activities, students gain both financial knowledge and confidence in their ability to attend and pay for higher education. With so many resources competing for the attention of young people, tools like *Ramp It Up* can help break through the noise to spur meaningful action using a format familiar to and popular with students.

## The Future of Gamification and Financial Security

*SavingsQuest* and *Ramp It Up* are just two examples of the type of gamified tools that can build and improve financial capability. Commonwealth envisions a financial industry that uses elements of fun to engage and motivate financially vulnerable people toward positive financial behaviors that increase their financial security and opportunity.

Well-designed games and gamified financial tools can improve engagement and motivation, reduce stress, build confidence, and promote real-world action taking. While the initiatives described here represent promising beginnings, there is more that can be done to design, pilot, and scale innovative solutions that apply these types of tools in new ways. We invite the financial industry, community-development practitioners, and policymakers to join the conversation and explore solutions that leverage games and gamification to increase engagement and improve financial security and opportunity for New England's financially vulnerable consumers.

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## Endnotes

- Daniel Fernandes, John G. Lynch, and Richard G. Netemeyer, "Financial Literacy, Financial Education, and Downstream Financial Behaviors," *Management Science* 60, no. 8 (2014): 1861–1883.
- See the full suite of games here: <https://financialentertainment.org/>.
- For a complete overview of research findings on Financial Entertainment, see Nick Maynard et al., "Can Games Build Financial Capability? A Financial Entertainment Report" (report, Doorways to Dreams Fund, Allston, MA, 2012), [http://buildcommonwealth.org/publications/can\\_games\\_build\\_financial\\_capability](http://buildcommonwealth.org/publications/can_games_build_financial_capability).
- Learn more about *SavingsQuest* here: <http://buildcommonwealth.org/work/savingsquest>.
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- Learn more about *Ramp It Up* here: <http://www.playrampitup.com/>.

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