



# Online Financial Information for College Students

## An Inquiry into Knowledge, Confidence and Financial Management Behavior

With the prevalence of online financial education content, new research from the University of Rhode Island analyzes the substantive impact and influence of a specific learning activity.

### RESEARCH QUESTION

The leading question for researchers centered on how a 2.5 hour online informational activity impacted college students' knowledge, confidence and financial management behavior.

### STUDY FRAMEWORK

The study employed a Randomized Control Trial (RCT) approach to track 256 students throughout their senior year of undergraduate study and beyond. During their time as undergraduates, half of the students were exposed to a knowledge influence activity<sup>i</sup> while half were not. Each student completed an intake survey and then were assessed at five different points in time: baseline, one week later, one month later, three months later and one year later.

### ACTIVITY DESIGN

The online content covered topic areas of relevance to graduating seniors: credit use, budgeting, student loans, employee benefits, and saving and investing. The information was presented through five online modules placed within their school's learning management system, in an environment that was not graded nor facilitated by an instructor. Each module, which included reading and a quiz, took on average 20 minutes to complete, amounting to 2.5 hours for the fulfillment of all five units.

### ACTIVITY MEASUREMENT

Researchers hypothesized that exposure to the online activity might have an impact in three areas: students' financial knowledge, financial confidence and financial management behaviors. Questions were selected from external sources to measure students' change in knowledge. Additionally, to measure any change in confidence, researchers asked questions designed to capture the students' perception of their ability to handle their finances. A third set of questions measured to what degree the students were engaging in desirable financial management behaviors.

## RESULTS FOR STUDENTS' KNOWLEDGE

Among the highlights of the findings:

- Students did not exhibit any knowledge gains from having worked through the material, when knowledge acquisition was measured using external questions not designed to accompany the specific knowledge influence activity (i.e., not explicitly tied to the learning objectives and presented content). Researchers note that students who completed the online modules did exhibit knowledge gains as measured by the assessment questions that accompanied the modules. However, since the control group did not answer those questions, the two groups could not be compared on that metric.
- Immediately after completing the modules and one week later, students had higher average scores in financial management than their counterparts who were not exposed to the material. The difference in scores, however, did not persist as time passed. Moreover, a one-time learning activity can impact behaviors in the very immediate future, but is not enough to build a lasting effect. Exposure to learning activities over time possibly prolongs the impact.
- Experiencing a relatively small dose of a knowledge influencing activity can have an impact on short-run financial confidence.

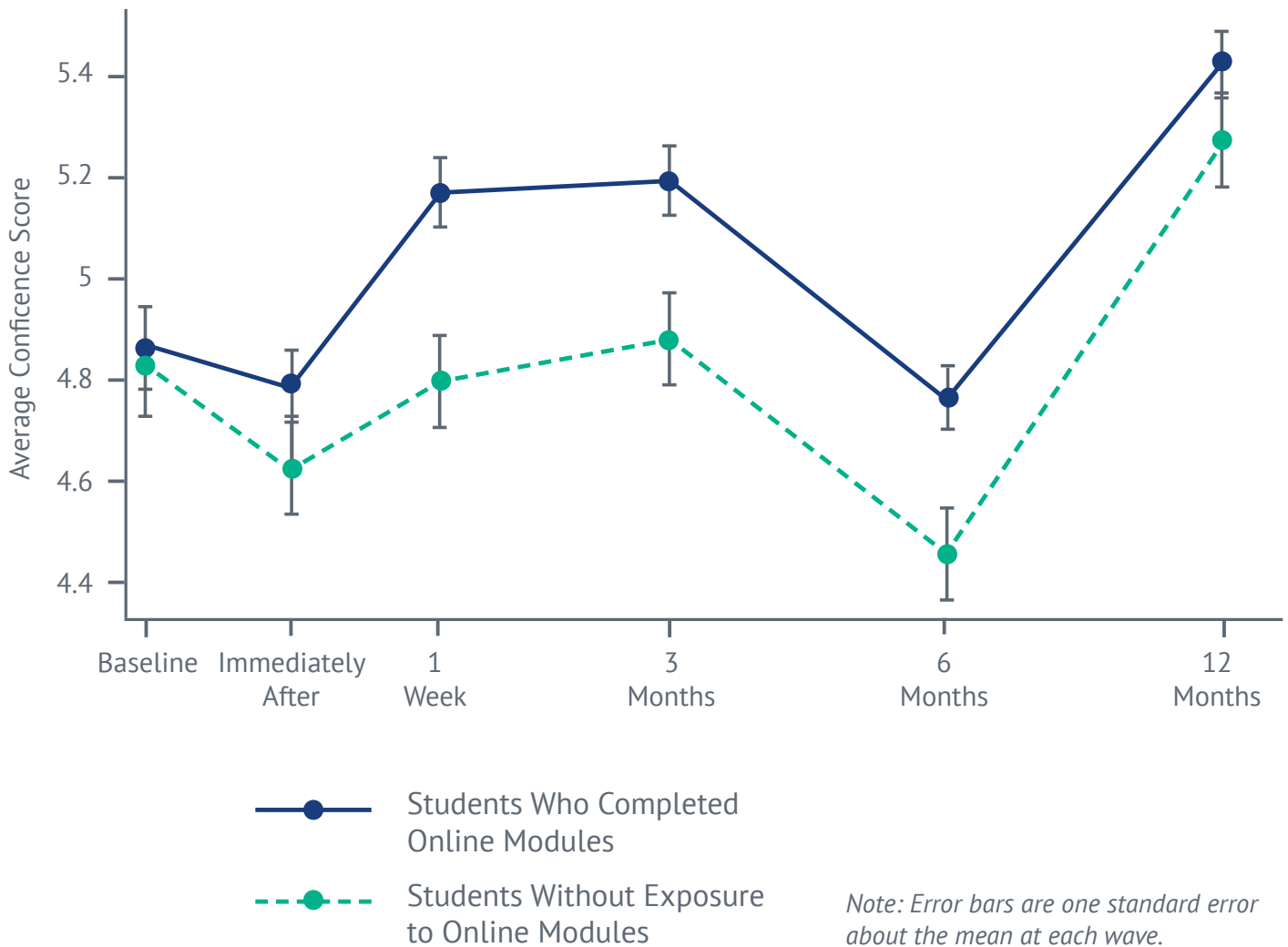
## MEASURING KNOWLEDGE

There are two common approaches to measuring change in knowledge. One method is to use questions that are designed to accompany the lesson and its specific learning objectives. Another way is to use “external” questions—from a variety of sources—that are topically appropriate, but not designed to accompany the knowledge influence activity. From a research perspective, there are positives and negatives to each approach. External questions are considered to be unbiased because they are unrelated to the curriculum used. Some researchers consider this a strength. Others would advocate for alignment between the learning objectives, topics covered and questions used to assess knowledge gain.

## RESULTS FOR STUDENTS' CONFIDENCE

Initially, and immediately after the exposure to the knowledge influence activity, each group of students demonstrate the same average levels of confidence. Notably, at week one, three months and six months, students who had worked through the material had a higher average level of confidence than those who did not. At the six month mark, both groups experienced a decrease in confidence, likely due to it coinciding with graduation—and apparently the impact that entering the “real world” has on confidence related to managing one’s finances. However, individuals who completed the knowledge influence activity had less decline in confidence after graduation than their counterparts. By year one, each group rebounded in confidence, but were no longer different from one another in their average confidence scores.

## AVERAGE LEVEL OF CONFIDENCE OVER TIME



### HOW TO INTERPRET ERROR BARS

For graphs that convey statistical averages, it is customary for researchers to include error bars to capture the sample's true variation around those average values. When error bars touch or overlap, it means there is no statistical difference between the two groups. In other words, although the values measured on the vertical axis may visually look different due to different numbers, they are too close together to infer that there truly is a statistical difference for the groups. When there is space between error bars, it means the difference between the groups are statistically significant.

## PRACTITIONER TAKEAWAY

Consider measuring confidence as part of your assessment efforts for brief knowledge influence activities.

The set of questions used in this study is straightforward to incorporate into a variety of programming contexts, and the questions themselves each come from vetted research sources.

- How would you assess your overall financial knowledge?<sup>ii</sup> (1-7 scale; 1 = very low, 7 = very high)
- I know how to deal with day-to-day financial matters, such as checking accounts, credit and debit cards, and tracking expenses.<sup>iii</sup> (1-7 scale; 1 = strongly disagree, 4 = neither agree nor disagree, 7 = strongly agree)
- I know how to manage my money well.<sup>iv</sup> (1-7 scale; 1 = strongly disagree, 4 = neither agree nor disagree, 7 = strongly agree)
- The last time you made a big financial decision (e.g., picking a credit card, buying a car, refinancing your mortgage), how knowledgeable did you feel about your choices?<sup>v</sup> (1-7 scale; 1 = not confident at all, 4 = somewhat confident, 7 = very confident)
- On a scale from A to F, what grade would you give yourself in terms of your knowledge about personal finance? (A, A-/B+, B/B-, C+/C, C-/D+, D/D-, F)

<sup>i</sup> A knowledge influence activity is implemented with the purpose of increasing the individual's overall financial knowledge and decision-making skills or to inform them about a specific, narrow topic. There are two main types: financial education, and financial information and tools. For more information on knowledge influencers and how they fit within NEFE's Personal Finance Ecosystem, visit [https://www.nefe.org/\\_images/about/NEFE\\_PersonalFinanceEcosystem.pdf](https://www.nefe.org/_images/about/NEFE_PersonalFinanceEcosystem.pdf).

<sup>ii</sup> National Financial Capability Study, 2009 and 2015. FINRA Investor Education Foundation. Question M4.

<sup>iii</sup> National Financial Capability Study, 2009 and 2015. FINRA Investor Education Foundation. Question M1\_1.

<sup>iv</sup> Heckman, S.; Lim, H.; and Montalto, C., 2014. Factors related to financial stress among college students. *Journal of Financial Therapy*, 5(1), 19-39.

<sup>v</sup> Consumer Financial Literacy Survey, 2015 and 2016. National Foundation for Credit Counseling. Question Q3.

<sup>vi</sup> Consumer Financial Literacy Survey, 2015 and 2016. National Foundation for Credit Counseling. Question Q19.



## Citation

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