

# WHEN IS FINANCIAL EDUCATION SUCCESSFUL?

KEYNOTE – 2022 CHERRY BLOSSOM FINANCIAL EDUCATION INSTITUTE

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# Financial Decisions are Difficult

- Not a user-friendly system – financial products often complex and difficult to evaluate
  - Calculating interest rates (flat or declining; compounding)
  - Anticipating liquidity needs, inflation, etc.
  - Comparing multi-dimensional products

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- Inter-temporal trade-offs sometimes difficult
  - Self control problems (Ashraf, Karlan and Yin, 2006)
  - Other behavioral concerns: procrastination, “channel” factors

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  - Other behavioral concerns: procrastination, “channel” factors
  
- Lack of disclosure and transparency (Gine and Mazer, 2016)

# Can Financial Education Help?

- Compelling survey evidence from the developed world shows strong positive correlation. HHs with low financial education:
  - Tend not to plan for retirement (Lusardi and Mitchell, 2007a)
  - Borrow at higher interest rates (Lusardi and Tufano, 2008; Stango and Zinman, 2006)
  - Acquire fewer assets (Lusardi and Mitchell, 2007b)
  - Participate less in the formal financial system (Alessie, Lusardi and van Rooij, 2007; Hogarth and O'Donnell, 1999).
- Evidence from the developing world shows similar correlations (Cole, Sampson and Zia, 2011; Klapper and Lusardi, 2012)

# Initial Experimental Evidence

- Precisely estimated **zero** average effect on savings accounts in Indonesia (Cole, Sampson, and Zia, 2011)
- Even modest effects tend to dissipate over time (Fernandes et al., 2013)
- Interest and participation in adult financial education workshops tends to be low (Bruhn, Ibarra, and McKenzie, 2014)
- Sessions tend to be short duration and variance across studies fairly high (Miller et al., 2015)

# Challenges for Financial Education Evaluation

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- Difficult to change “sticky” behavior, especially in short classroom sessions

# Promising New Wave of Evidence

- Kaiser et al (2020) meta-analysis of 76 RCTs:
  - ▣ Treatment effects are economically meaningful in size
  - ▣ Similar to those in educational interventions
  - ▣ At least 3 times as large as previously documented

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- Different and promising outlook for financial education
- Can we unpack where these impacts are coming from?  
When is financial education successful?

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- For policymakers, these are important results
  - If financial education help high risk or vulnerable groups, these can be life altering steps (e.g. avoidance of bankruptcy)
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- For policymakers, these are important results
  - ▣ If financial education help high risk or vulnerable groups, these can be life altering steps (e.g. avoidance of bankruptcy)
  - ▣ Need to reframe how we think about impacts

# Targeting Youth

- Good early habits likely to benefit future financial decisions
- School-aged youth are primed to learn and hence easier to teach
- Opportunity for repeated exposure and practice
- Trickle-up impacts on households

# School-Based Interventions

- RCT of financial education curriculum in 892 schools in 6 states in Brazil (Bruhn, et al. 2016)
  - ▣ Improvements in knowledge, attitudes, behaviors
  - ▣ Lower likelihood of school dropout
  - ▣ Positive spillovers to parents
  
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- Similar RCT from Peru in 300 schools (Frischano, 2020)
  - ▣ Combines survey and credit bureau data
  - ▣ Lower credit delinquencies for both students and teachers

# Way Too Happy Teachers and Students



# What About Primary Schools?

- Berry et al (2018) study financial education in 135 Ghana primary schools
  - ▣ No improvements in knowledge, or socio-psych measures
  - ▣ However, reliable and consistent measures are difficult

# Inter-temporal Choices

- Two studies on German high school students (Luhmann et al (2018) and Sutter et al (2020)):
  - ▣ Improvements in time-consistent choices
  - ▣ Lower present-bias
- School curriculum focused on future self and forward-looking behavior in Turkey (Alan and Ertac (2018)):
  - ▣ Lab and survey findings show higher patience in inter-temporal decision tasks

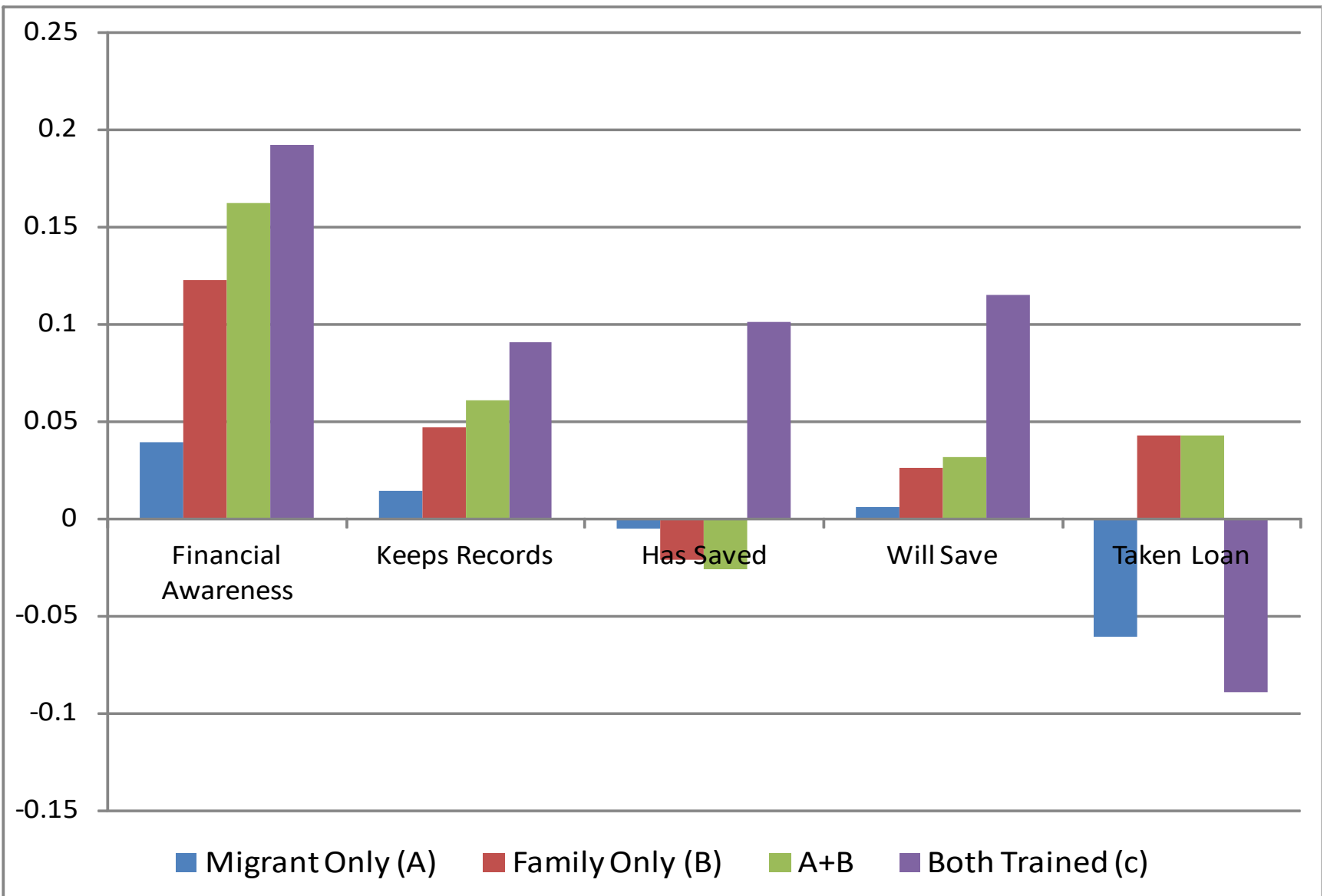
# Targeting Teachable Moments

- Perhaps financial education can be most effective when the lessons can be implemented and used immediately
- A clear example of this is the time of migration
- Possible complementarities if both sender and receiver trained



# How Best to Exploit Teachable Moments?

- Financial education study with 400 migrant workers (Doi, McKenzie, and Zia, 2014)
- RCT with four arms:
  - Migrant only
  - Main remittance receiver only
  - Both together
  - Control group



# Even Within Teachable Moments, Targeting Matters

- Gibson, et al (2014) find no impact on remittance frequency among migrants to Australia and New Zealand
- Barcellos et al (2016) and Seshan And Yang (2014) also find null effects in the US and Qatar
  - ▣ Seshan and Yang find significantly higher savings and remittances among those with lower pre-treatment savings

# Complementary Interventions

- Evaluation in India (Carpena et al., 2019):
  - Financial Education alone
  
  - + Goal setting through simple calendars
  
  - + Personalized counseling
  
  - + Both
  
  - Control

# Complementary Interventions

- Findings show:
  - ▣ Null effect of classroom
  - ▣ Adding goal setting or counseling has large effects – e.g. 45% improvement in savings account
- Theodos, Stacy, and Daniels (2018) show similar results from one-on-one coaching on money management, debt, and savings

# Incorporating Behavioral Channels

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- Some success when behavioral limiters are removed:
  - Reminders to repay loans on time and to save are effective (Karlan, et al., 2012)
  - Framing and disclosure of adding-up effect of fees and interest reduces use of high interest loans (Bertrand and Morse, 2011)

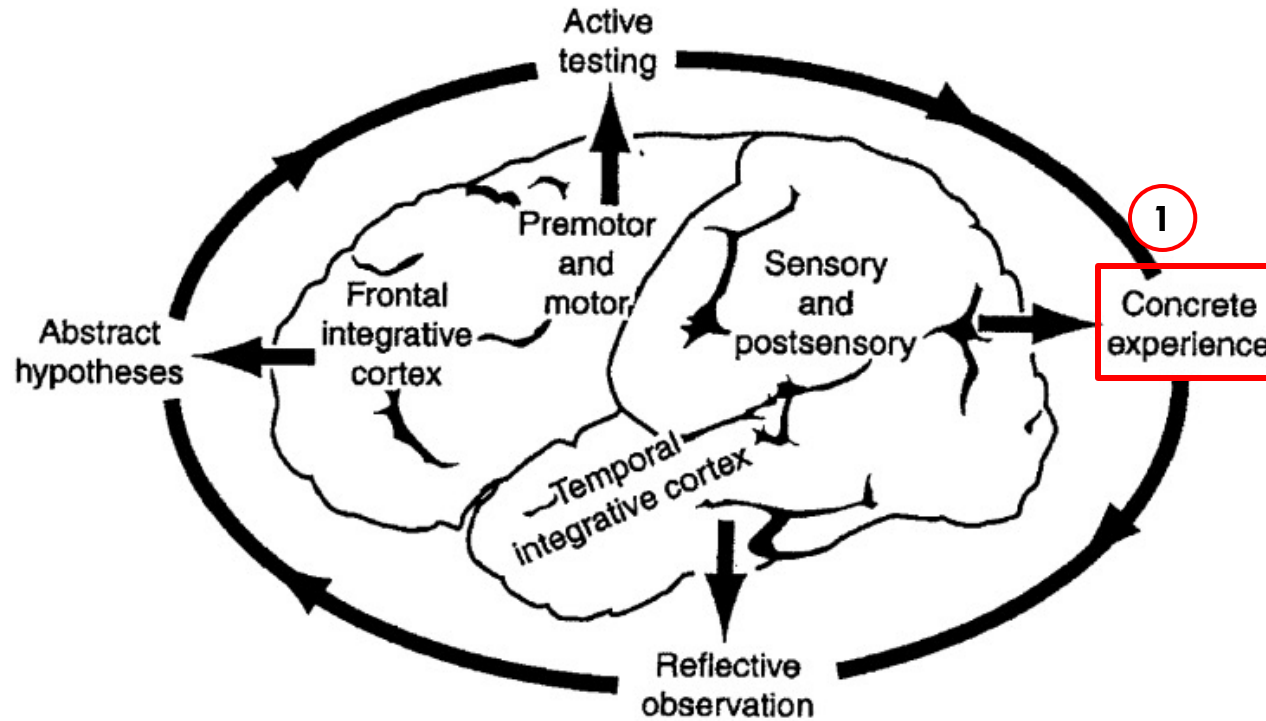
# Gamification and Experiential Learning

- Attanasia, et al. (2019) evaluate tablet-based financial education with gamified presentation in Colombia
  - ▣ Treated group of women 26% more likely to save
- Calderone et al (2018) study financial education augmented with comics
  - ▣ 49% improvement in savings amounts
- Abel, Cole, and Zia (2020) study gambling debias through experiential learning
  - ▣ Lower gambling propensity a year later from 5-minute interactive game



# Experiential Learning: 4-Stage Learning Cycle

(Zull 2002)

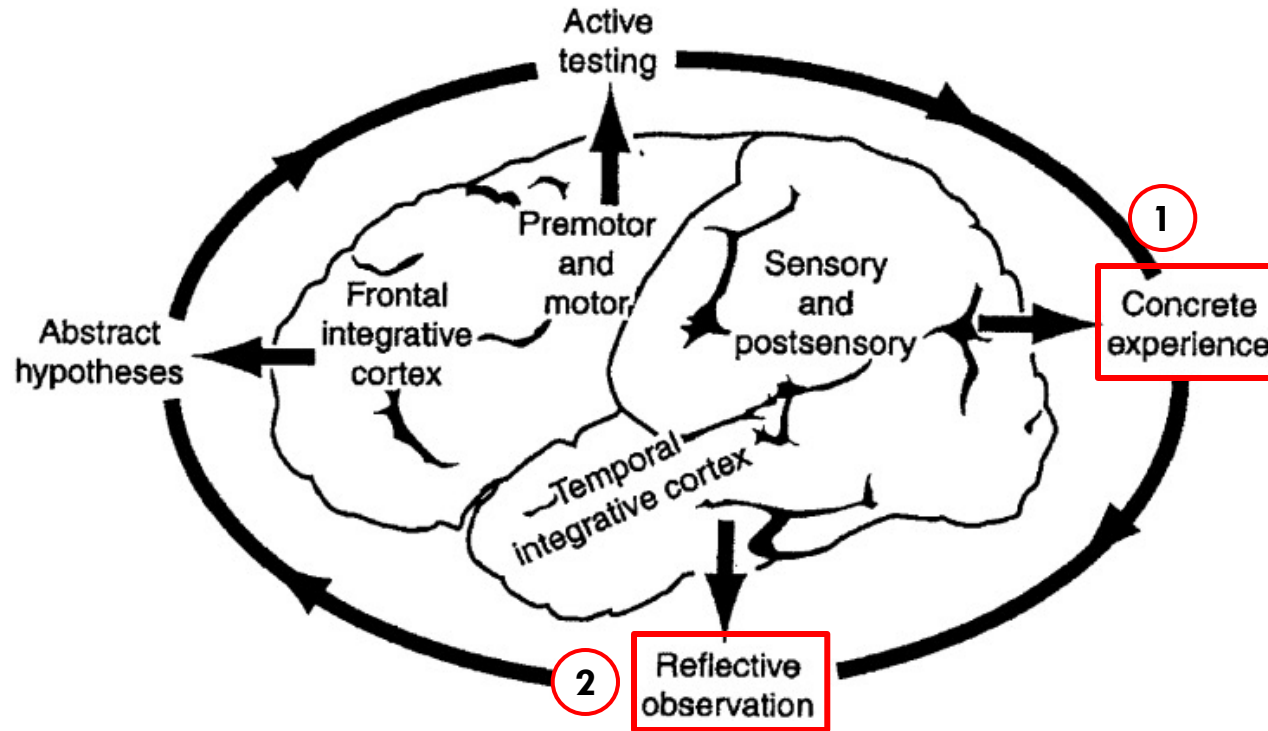


Roll 1 die till one 6  
Roll 2 dice till all 6s



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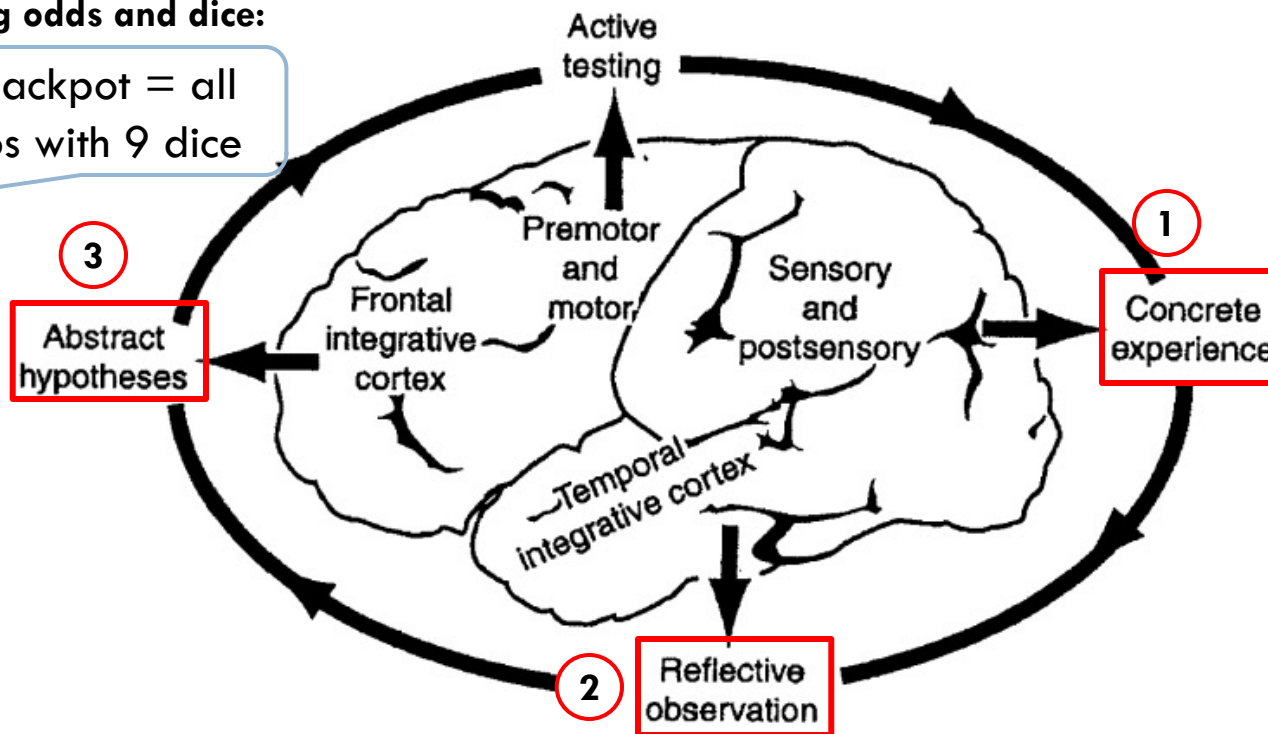
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Relate winning odds and dice:

Jackpot = all 6s with 9 dice



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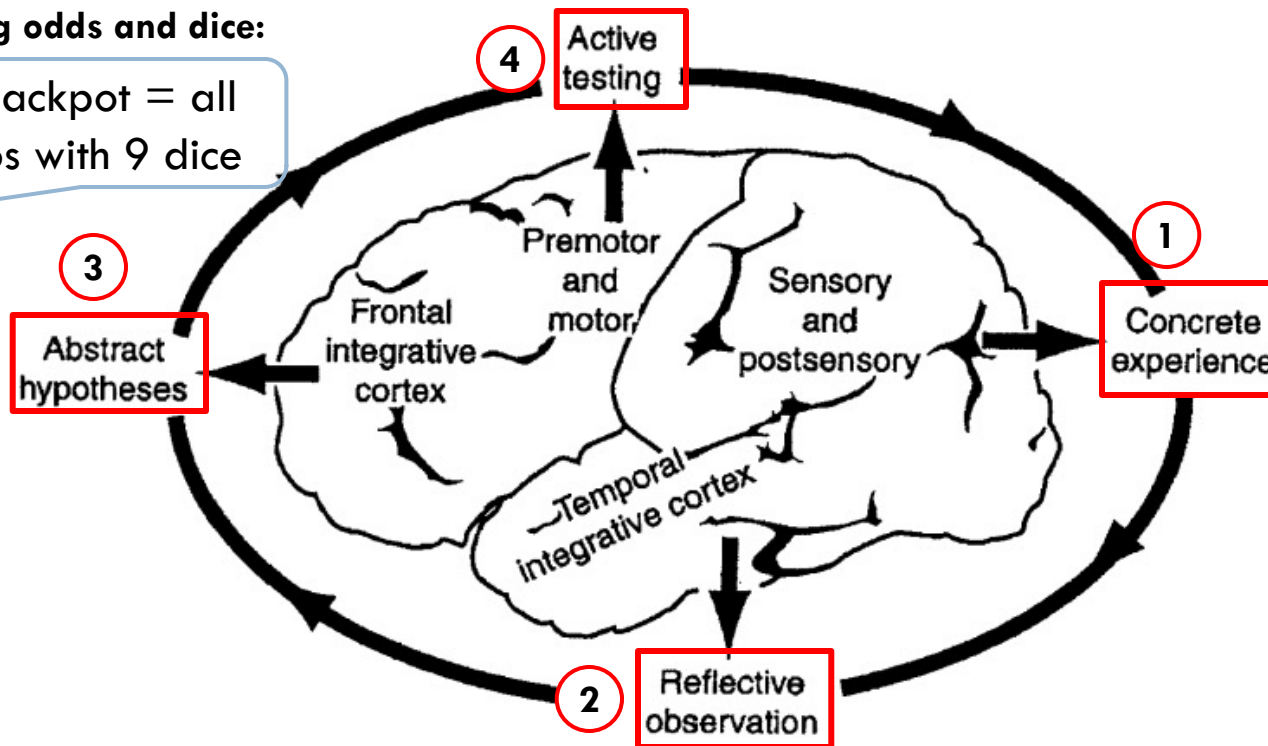
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Let people roll 9 dice



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# Innovative Delivery Channels

- Scope and reach of even most well-designed financial education is limited:
  - ▣ Supply side – difficult and expensive
  - ▣ Demand side – challenging to attract and retain interest

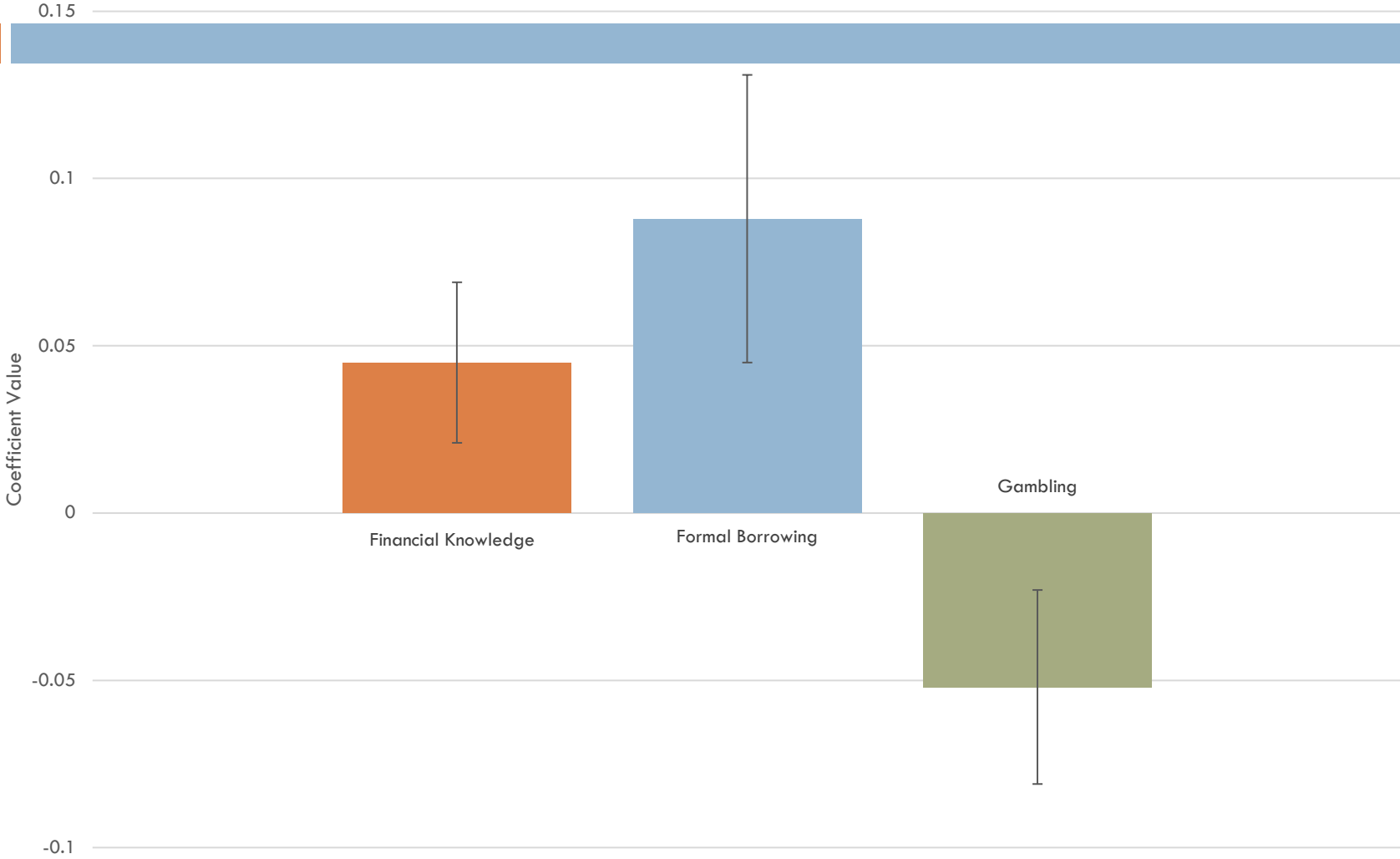
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- Entertainment media offers a promising (potential) solution:
  - ▣ Broad outreach – nearly every household has access to a TV
  - ▣ Captive audience – emotional connections to storylines and actors

# Edutainment

- Debt management messages in a popular soap opera (Berg and Zia, 2017)
- Randomized Encouragement Design:
  - ▣ Treated Group: Incentivized to watch “Scandal!”
  - ▣ Control Group: Incentivized to watch “Muvhango”

# Treatment Coefficients





# Decentralized Delivery

- Hakizimfura et al (2020) study impacts of financial education delivered by SACCO workers
  - ▣ Impact starkly different based on who delivers content
  - ▣ With discretion, teachers are engaged, attendance is high, and learning impacts are significant
  - ▣ Identifying the right incentives and levers for local teacher engagement is useful avenue for research

# Concluding Remarks

- Financial education is not a silver bullet
- However, it can be an effective tool when delivered at the right time, to the right audience, through the right channels, and in combination with other interventions
- Next wave is focusing on digital delivery
- More research needed on longer-term effects