

I Am So Tired! I Don't Know What To Do! Fatigue and Financial Literacy: Results from a Randomized Experiment

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Survey Fatigue and Financial Literacy

Survey fatigue is a well-documented phenomenon. Later questions in long surveys have lower-quality answers, see Herzog and Bachman (1981)).

Financial literacy (FL): Measured in surveys using the “Big Three” questions of Lusardi and Mitchell (2008). Some respondents find it difficult.

We ask: Does placement of financial literacy questions affect the responses to these questions? Evaluate impact of question placement on financial literacy responses

1. Survey Questionnaire Design - A/B Testing Framework

Higher likelihood of “Don’t Know” (DK) when questions are later in the survey.

2. Oaxaca-Blinder Decomposition

Find the majority of difference (about 80%) in DK responses due to unobservables.

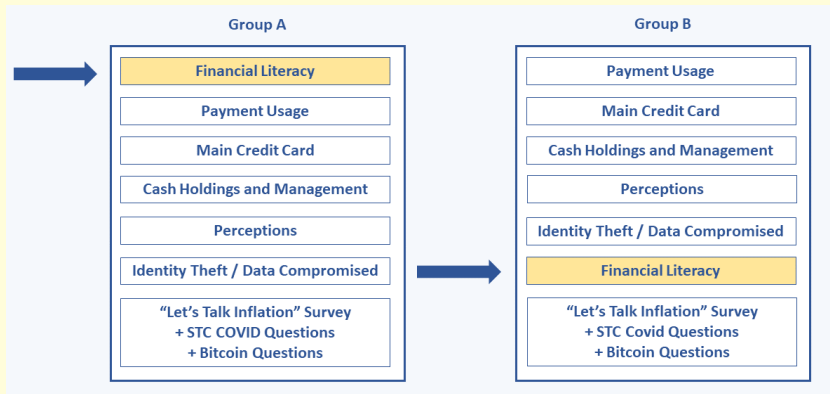
3. Propensity Score Matching

Accounting for selection reduces the impact of unobservables (about 20-30%).

Randomization of Financial Literacy Placement

- **Survey:** Cash Alternative Survey (CAS) Wave 2 (November 2020), conducted during the second wave of the Covid-19 pandemic, see Chen et al. (2021). Questions on methods of payment, cash holdings, etc.
- Intentionally randomized placement of the FL questions:

Figure: CASW2 Survey Layout



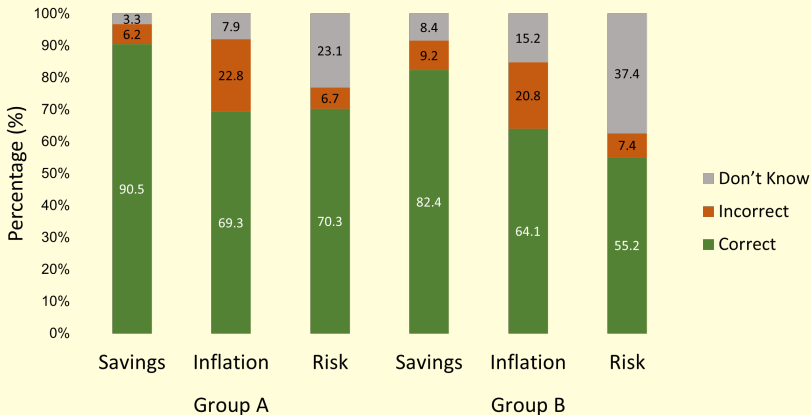
1. A/B Results: Group A outperforms Group B

- **Group A:** FL questions at the beginning (n=1,946).
- **Group B:** FL questions at the end (n=1,946).

$$\Delta_{r,j} = P(Y_{ij} = 1 | T_i = 1) - P(Y_{ij} = 1 | T_i = 0)$$

Where $r \in \{\text{Correct, Incorrect, Don't Know}\}$, and Y_{ij} indicates a response to question j by respondent i .

Figure: Overall breakdown (%) of responses for each question, by group



Mind the gap: Group A does better than Group B

	Correct			Incorrect			Don't Know		
A versus B	Q1	Q2	Q3	Q1	Q2	Q3	Q1	Q2	Q3
Difference	-0.08***	-0.05**	-0.15***	0.03***	0.02	-0.01	0.05***	0.07***	0.15***
OB	Q1	Q2	Q3	Q1	Q2	Q3	Q1	Q2	Q3
Difference	-0.08***	-0.06**	-0.16***	0.03***	0.02	-0.01	0.05***	0.07***	0.15***
Endowments	0.00	0.01	0.01	-0.00	-0.01	0.00	0.00	0.00	0.01
Coefficients	0.08***	0.06**	0.15***	0.03 **	0.02	-0.01	0.04***	0.07***	0.14***
Interaction	-0.00	-0.01	0.00	-0.00	-0.01	0.00	0.00	-0.01	0.00
PSM	Q1	Q2	Q3	Q1	Q2	Q3	Q1	Q2	Q3
ATT	-0.07***	-0.03**	-0.11***	0.03***	-0.02	-0.01	0.04***	0.05***	0.12***
ATE	-0.07***	-0.04**	-0.11***	0.03***	-0.02	-0.01	0.04***	0.05***	0.12***

Notes: Uses a logit PS model. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Matching covariates: age (18-24, 35-54, 55+), gender (male or female), education (high school, college, or university), and income (<\$45K, \$45K-\$85K, \$85K+).

Key Takeaways

Main takeaway: When it comes to measuring financial literacy, the placement of questions has a direct effect on results– given the “Don’t Know” option some respondents, especially female, will exercise it.

- Some evidence of survey fatigue as respondents who answer the FL questions later tend to perform worse.
 - The shift is from Correct \Rightarrow “Don’t Know” responses.
 - The gender gap could be exacerbated by survey fatigue.
- We find that about 80-90% of differences due to unobservables. Causal inference using PSM can reduce the effect by about 25%.
- No effect on incorrect answers.
- Measures of FL should be based on the number of incorrect answers.

References

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