

SSHT: ONLINE PARTICIPANT POOLS

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AGENDA

- What are online participant pools?
- Pros and Cons of online participant pools
- Data quality
 - Designing your survey/experiment
 - Dealing with it after data collection
- What does it cost?
- Practical tips and tricks
- Conclusion and questions

ONLINE PARTICIPANT POOLS

- Online workers or crowdsourcing
- Participants for experimental or survey research
 - you pay them in return for participation in your research
- E.g., MTurk, Prolific.

ONLINE PARTICIPANT POOLS

PRO

- Extremely fast data collection (a few hours)
- Large sample sizes (access to over 500,000 workers from 190 countries!)
- Low cost

CONTRA

- No control (\leftrightarrow lab)
- Low data quality
- Low statistical power (due to noise)

DATA QUALITY: DESIGNING YOUR SURVEY/EXPERIMENT

- Use **CloudResearch** (former TurkPrime) to block low quality participants
 - Only allow participants with an **approval rating** of > 95%
 - Include **screening questions** to select qualified participants
 - Be aware that participants may overstate their qualifications
 - Solution: ask knowledge questions
 - Include **captchas** to exclude bots
 - Include several **comprehension checks** (= Natural Language Attention Checks) and specify that workers should answer, for instance, 90% of these questions correctly to secure payment
- ↔ attention check! (impression of distrust and interrupts the study)

DATA QUALITY: AFTER DATA COLLECTION

- Be transparent!
- Sample reduction is possible based on:
 - Implausibly short response times
 - Nonsense answers (e.g., numerical responses to qualitative questions)
 - Multiple responses from one IP address
 - Attention or comprehension check failures
 - Manipulation check failures
 - Outlier responses

COST CALCULATION

MTurk

- You decide how much you pay your participants → mean effective hourly wage on MTurk < \$5
- Service fee of 20%
- If you use embedded screening tools, you pay additional fees
- Example for 400 participants, \$10 per participant:
 - \$ 4,800 (MTurk)
 - \$ 5,600 (CloudResearch)

Prolific

- Minimum wage of \$8 per hour
- Service fee of 25%-30%
- Cost calculator on the Prolific website
- Example for 400 participants, \$10 per participant: \$ 5,333

PRACTICAL TIPS AND TRICKS

- > 500 approved HITs / approval rate of > 95% = **high-quality data**
- Ideally, you combine it with comprehension checks to further improve data quality
- **Pilot testing** to help refine completion time expectations (online workers are way faster than students in a lab)
 - make sure you do not overpay them!
- If you want/have to target participants based on demographics
 - use Prolific
- Be aware that workers use **forums** to discuss HITs (experimental tasks) and may thus see through your research objectives (manipulations)

PRACTICAL TIPS AND TRICKS

- Collect **many observations** (more than you would do in the lab). Data quality is lower than in the lab → lower statistical power
- **Interactive experiments** may need specific software → check whether it works on MTurk/Prolific/...
- Data collection goes very fast, so keep in mind the **time difference** between countries. If you need multiple countries (e.g., US and UK), you have to think carefully when to put your survey/experiment online.

TO END WITH

- Prior research has shown that:
 - ✔ Online participant samples are comparable to other convenience samples (e.g., students)
 - ✔ Using online workers as research participants is a valid methodological choice in many conditions
- Should we all move to online participants?
- Should we all stick to the lab?

QUESTIONS?

REFERENCES

- Bentley, J. W. (2021). Improving the statistical power and reliability of research using amazon mechanical turk. *Accounting Horizons, 35(4), 45-62.*
- Buchheit, S., Doxey, M. M., Pollard, T., & Stinson, S. R. (2018). A technical guide to using amazon's mechanical turk in behavioral accounting research. *Behavioral Research in Accounting, 30(1), 111-122.*
- Farrell, A. M., Grenier, J. H., & Leiby, J. (2017). Scoundrels or stars? Theory and evidence on the quality of workers in online labor markets. *The Accounting Review, 92(1), 93-114.*
- Peer, E., Brandimarte, L., Samat, S., & Acquisti, A. (2017). Beyond the turk: Alternative platforms for crowdsourcing behavioral research. *Journal of Experimental Social Psychology, 70, 153-163.*
- Peer, E., Vosgerau, J., & Acquisti, A. (2014). Reputation as a sufficient condition for data quality on amazon mechanical turk. *Behavior Research Methods, 46, 1023-1031.*

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THANK YOU!