

Research Question

Do people exert more effort for less money when they are paid in a streak-rewarding way (i.e., reward for 3 consecutive behaviors)?

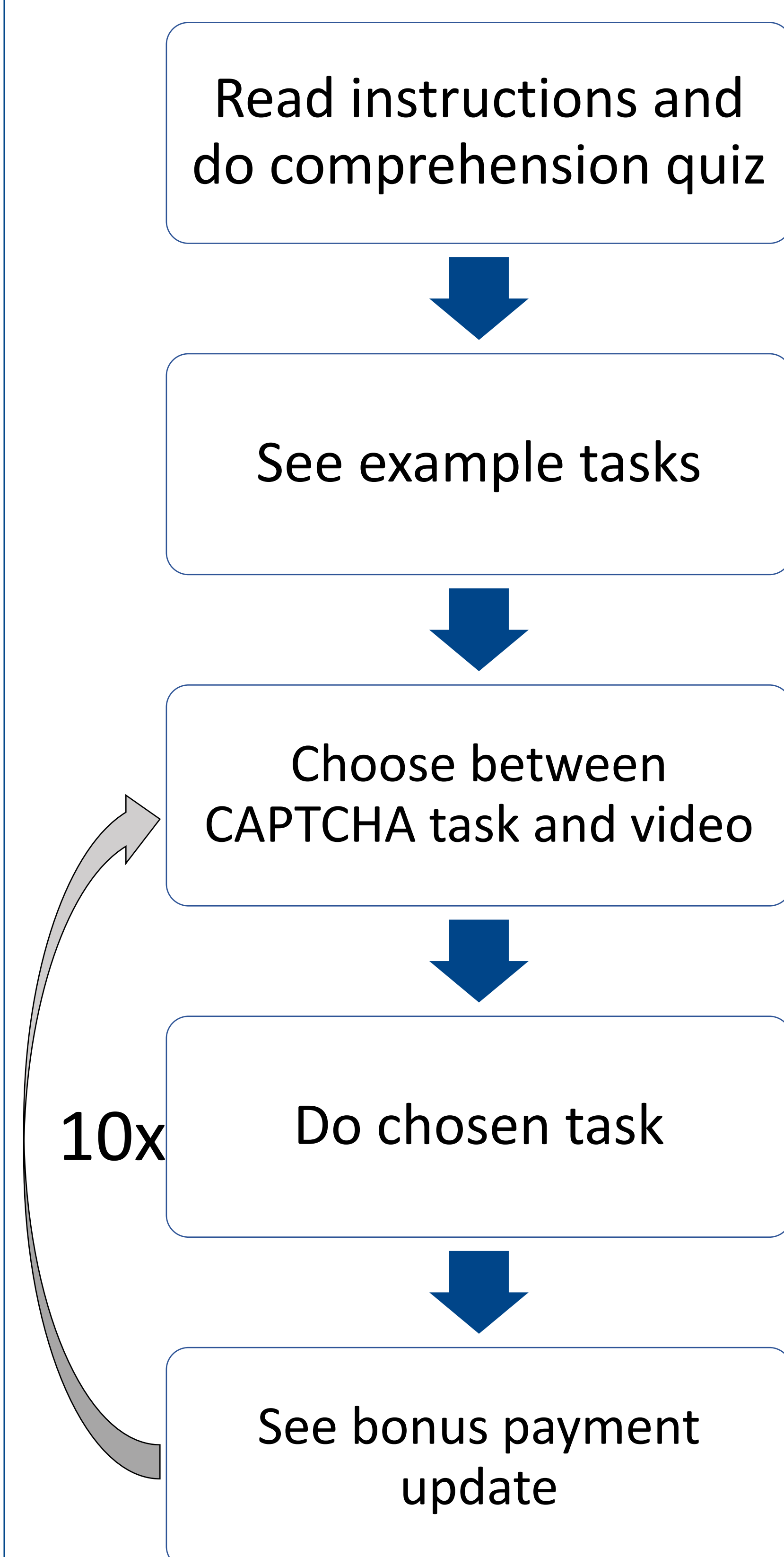
Abstract

Economic theory predicts that people should work more in exchange for a larger payment compared to a smaller, dominated reward. However, in four incentive-compatible, pre-registered experiments, we show that smaller payments encouraging people to maintain a streak (i.e., complete three or more consecutive, undesirable tasks) lead people to complete more undesirable tasks than a larger, flat incentive. Our findings suggest that rewarding people for achieving streaks can be a powerful motivating tool because it increases goal-setting because it makes the task at hand feel more like a game, thus increasing persistence.

Basic Study Design

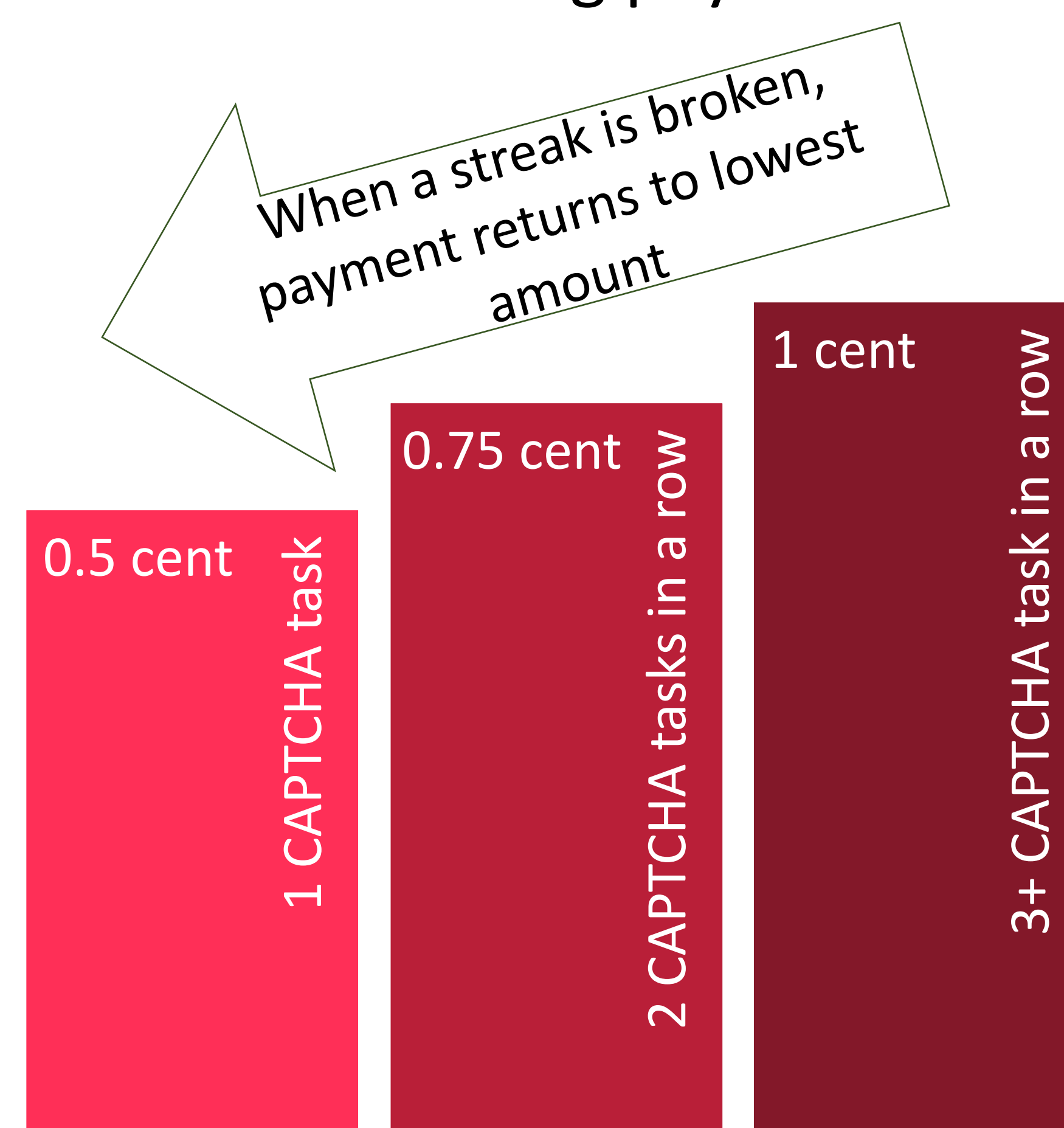
- P's earn payments every time they choose to do a dull task (e.g., solving CAPTCHAs) over a more fun task (e.g., watching funny videos)

Flow of experiment for participants

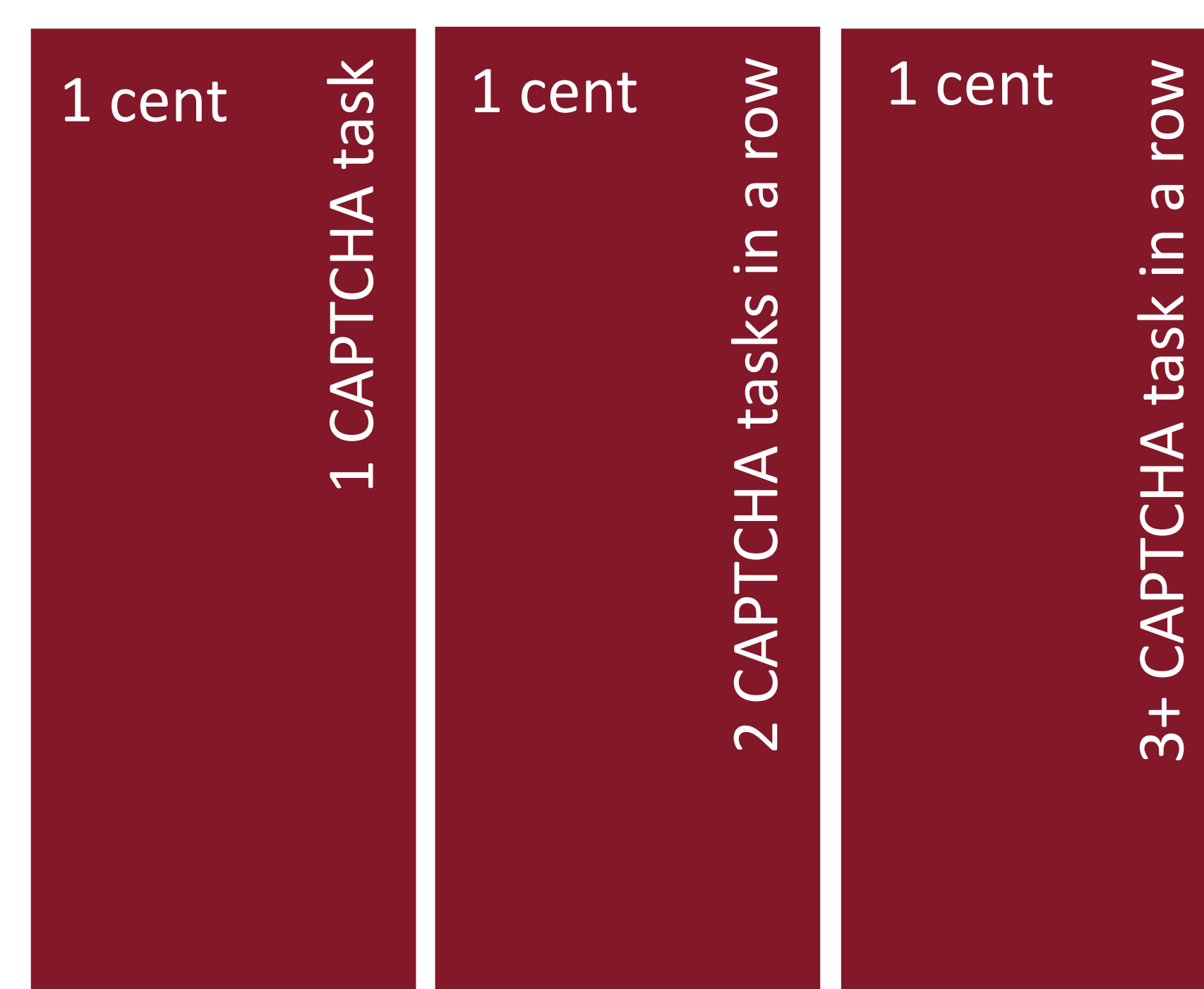


How do the incentives work?

Streak-rewarding payment scheme

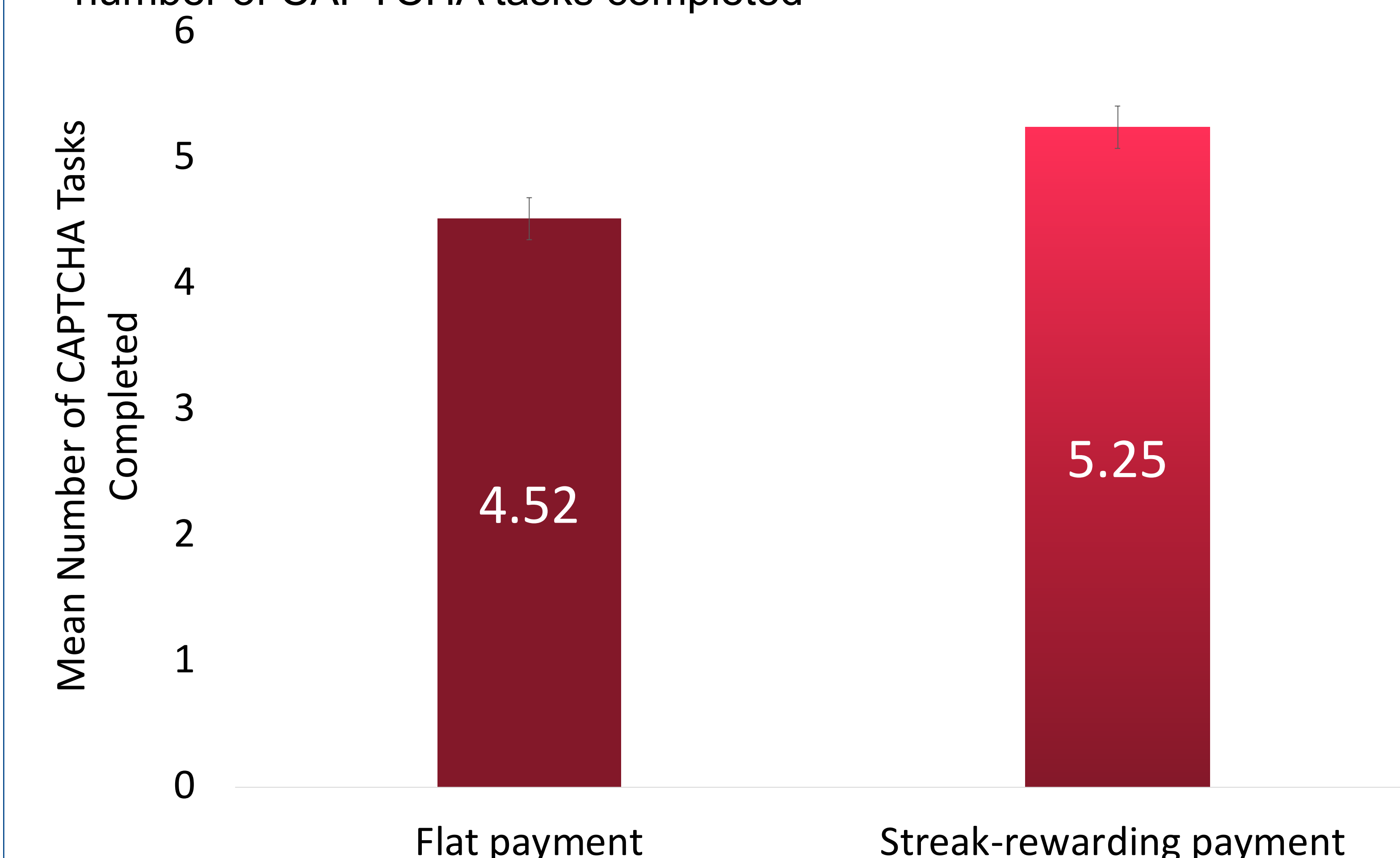


Flat payment scheme



Study 1: Establish effect, test mechanism

- **Sample:** N = 1,216 from Mturk (preregistered)
- **Design:** Streak-rewarding vs flat payments; testing proposed mechanism of gamification (ask participants whether HIT feels like it can be won and if HIT feels like a game)
- **Mediation:** Marginally significant indirect effect of gamification on number of CAPTCHA tasks completed



$t(1201.90) = -3.07, p = .002$

Study 2: Effect is *not* solely driven by increasing incentive scheme

- **Sample:** N = 711 from Mturk (preregistered)
- **Design:** 3 between subject payment conditions: Streak-rewarding vs flat vs increasing. *Increasing* = 0.5, 0.75, and 1 cent for the 1st, 2nd, and 3rd CAPTCHA task, regardless of whether tasks were completed consecutively



Flat vs. streak-rewarding: $t(708) = 3.47, p = .0005$; flat vs. increasing: $t(708) = 1.63, p = .105$; streak-rewarding vs. increasing: $F(1, 708) = 4.40, p = .036$

Study 3: Full penalty not required to motivate people

- **Sample:** N = 702 from Mturk (preregistered)
- **Design:** 3 between subject payment conditions: Streak-rewarding vs flat vs streak without skip penalty. *Streak without skip penalty* = payment remains at same amount after selecting a video and increases after 2 consecutive CAPTCHA tasks following video



Flat vs. streak-rewarding: $t(699) = 3.36, p = .0008$; flat vs. streak without skip penalty: $t(699) = 2.92, p = .004$; streak-rewarding vs. streak without skip penalty: $F(1, 699) = 0.18, p = .670$

Conclusion

- Streak-rewarding payments are more motivating than flat, dominant payments and thus people do more when paid less
- Replicated across different payment amounts and tasks
- Highlighting the possibility of streaks could motivate people to engage in more should behaviors (i.e., saving for retirement, exercising)

Questions and feedback welcome! Please email Katie Mehr at kmehr@wharton.upenn.edu.