Subjective Feedback, Competition, Effort and Performance - an Online Experiment

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Research questions
• How do competition and subjective feedback impact the effort and performance of individuals?
• Are there differences in the impact by gender?

Context
• Females participate less and perform worse in competitive settings
• Objective performance feedback increases participation of high ability females
• Positive feedback (encouragement) can improve female performance
  ➔ Can subjective feedback help overcome competitive disadvantage?
  ➔ Test using an online game played at home

Methodology
Online game
• Randomized treatment = feedback - Pop-up textboxes and graphics
Sample:
• Advertised in social media
  • 18-45 year-olds
  • 5100 players, 9600 games

Effort:
• Number of games played
• Clicks per game
Performance:
• Score
  • Accuracy: Score/clicks

8 treatment groups:
- No feedback
- Supportive feedback
- Rewarding feedback
- Trash talk

No leaderboard
With leaderboard

Implications
• Individualized feedback is key
  • Significant differences in response
• Subjective feedback can impact gender differences
  • Supportive feedback can help females participate more and perform better in competitive settings, such as STEM fields

Participation: number of games played

Performance: scores

Outcomes

References

• Both genders play more games when leaderboard is shown
• Male scores higher when leaderboard is shown
• Female scores higher when shown leaderboard and given supportive feedback

Accuracy: score / clicks
• Females’ accuracy improves when shown leaderboard and given supportive feedback