Summary: We experimentally studied the effects of two design variables, price and difficulty of tasks, on the quality of work produced in task sequences. Our preliminary results showed that while the prices of all previous tasks had some effects on work quality of the current task, the difficulty level of the previous task seemed to have no significant influence on it.

Motivation

• Many requesters in online labor markets offer workers opportunity to complete multiple tasks of the same type in a sequence.
• How should a task sequence be properly designed then?
  - How does the history of task prices affect the quality of work?
  - How does the difficulty of previous tasks affect the quality of work of the current task?

Effects of Task Price

Tasks: • Motor skill task – Button Clicking (BC)
  • Cognitive skill task – Spotting Differences (SD)

Results:
  • Effect of the price of task 1: 4-4-4 vs. 32-4-4
  • Effect of the price of task 2:
    - 4-4-4 vs. 4-32-4
    - 4-4-32 vs. 4-32-32
  • The price of task 1 has more influence: 32-4-4 vs. 4-32-4

Effects of Task Difficulty

Hypotheses:
  • Task switching effect: quality is lower when the previous task is different from the current task
  • Sequential difficulty effect: quality is lower when the previous task is more difficult

Results:
  • The work quality of the current task was independent of the difficulty level of the previous task.
  • “Anchoring” on difficulty: workers adjusted their perception of fair payment according to the change of difficulty levels.
  • Is the insensitivity of the work quality to the change in difficulty levels caused by a mixture of different effects?

Tasks: Sequences of two tasks with the same payment level; the difficulty level of task 2 is higher than, lower than or equal to that of task 1.

Tasks:
  • Motor skill task – Button Clicking (BC)
  • Cognitive skill task – N-back Game (NB)

(a) A – A vs. B – A

(b) A – B vs. B – B