# Communication Patterns and Performance in Early Startups

upshot

communication patterns, larger teams, central leadership, and physical space are crucial for developing companies

data

17 companies, 67 individuals, 16 mentors and staff in a startup accelerator for 6 weeks

measure communication between team members with **rhythm badges**

daily survey for each member on project confidence and team performance

methods
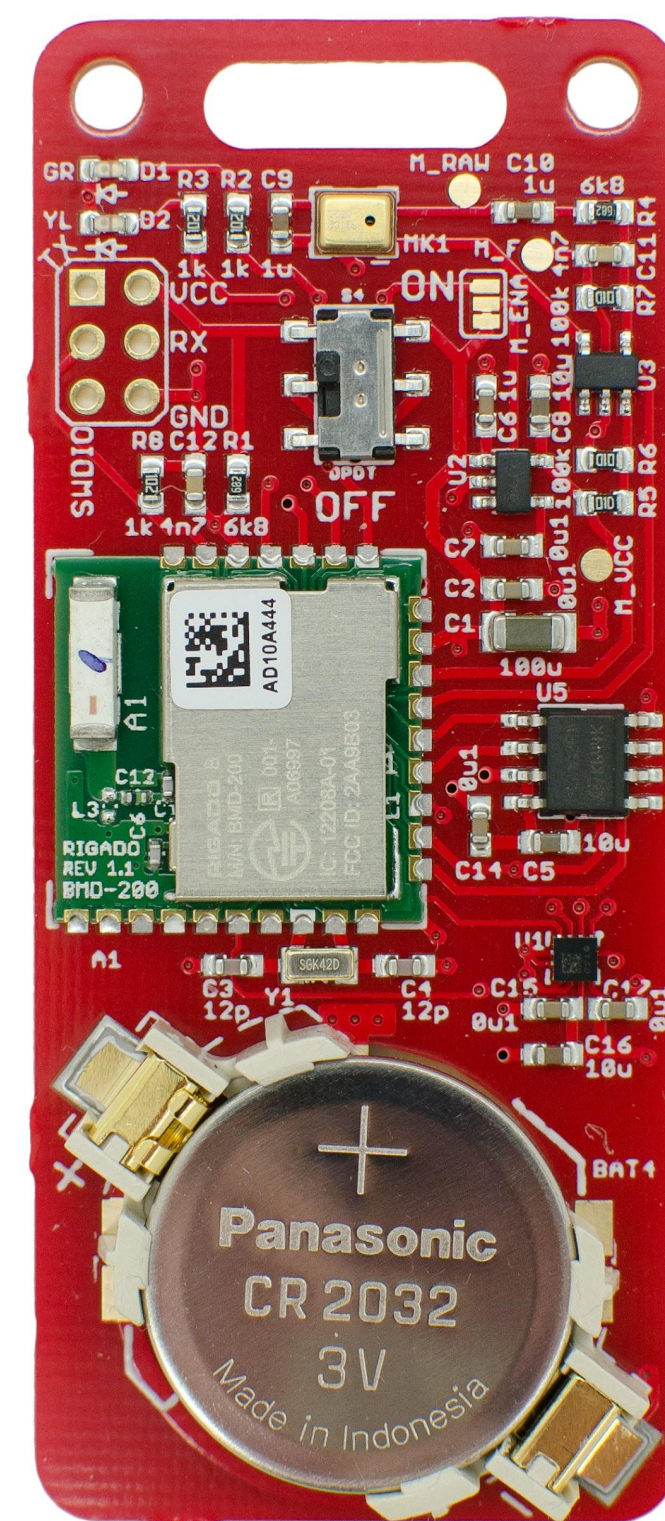
subjective daily performance

$$q\_daily\_mean_{c,t} = \frac{\sum_{i \in c} q_{i,t}}{r_{c,t}}$$

subjective overall performance

$$q\_overall\_mean_c = \frac{\sum_{i \in c, t \in T} q_{i,t}}{r_c}$$

objective overall performance

$$milestone\_rewards_c$$

communication
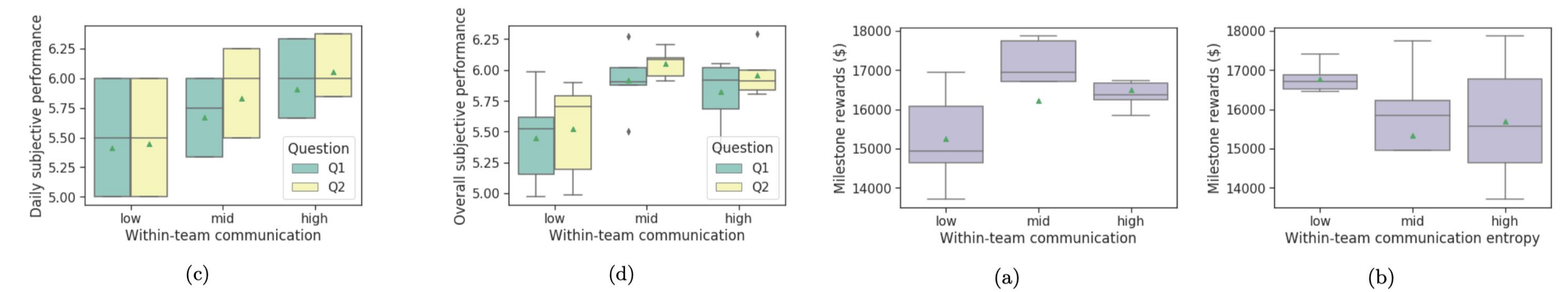
minutes talking within company

$$minutes\_company_{c,t} = \sum_{i,j \in c} minutes_{ij,t}$$
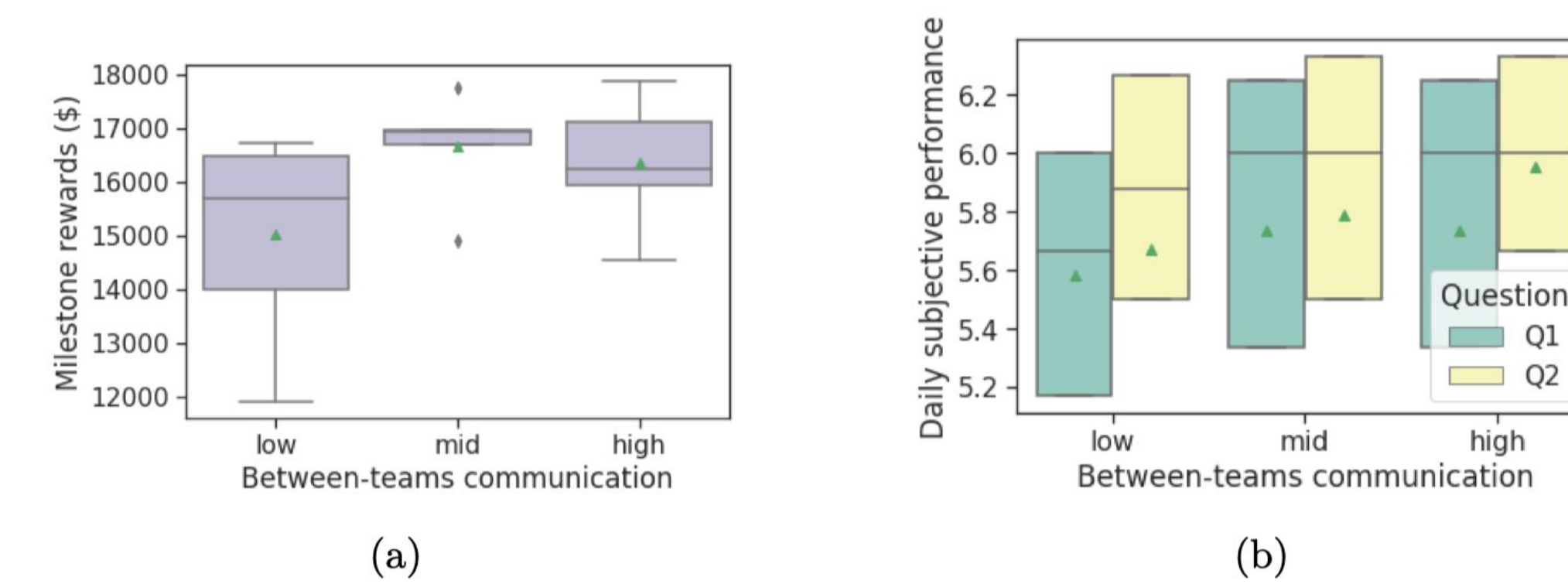
minutes talking with other company

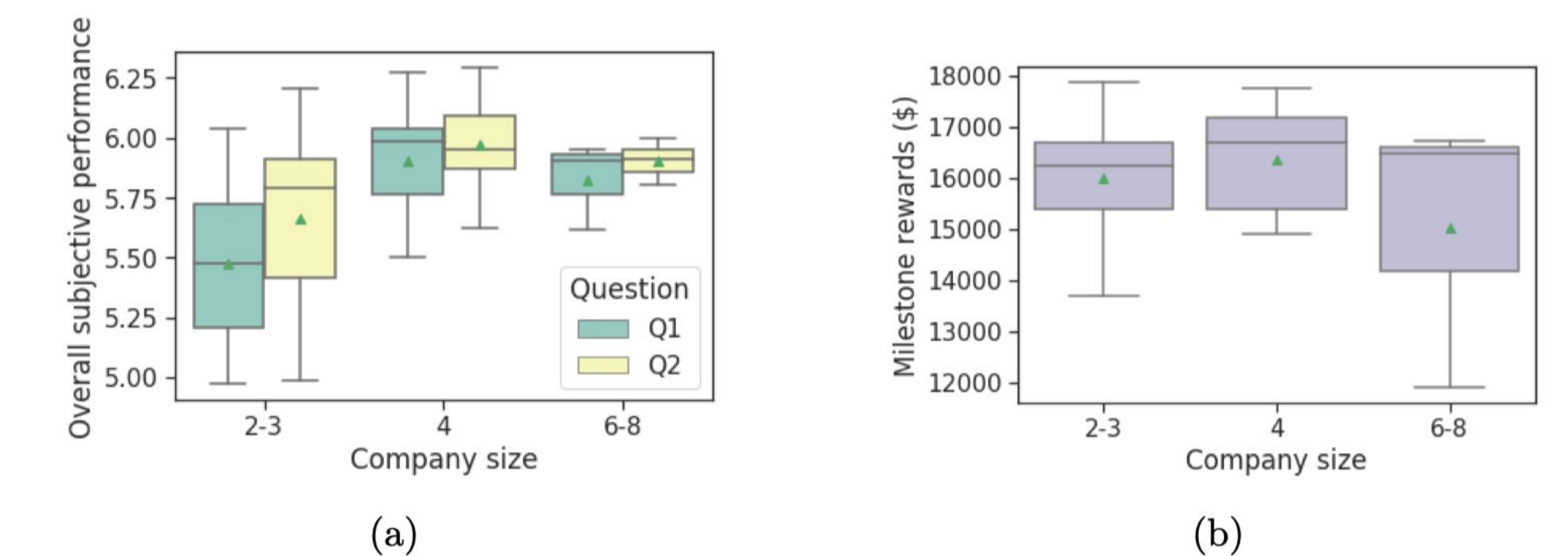$$minutes\_other_{c,t} = \sum_{i \in c, j \notin c} minutes_{ij,t}$$

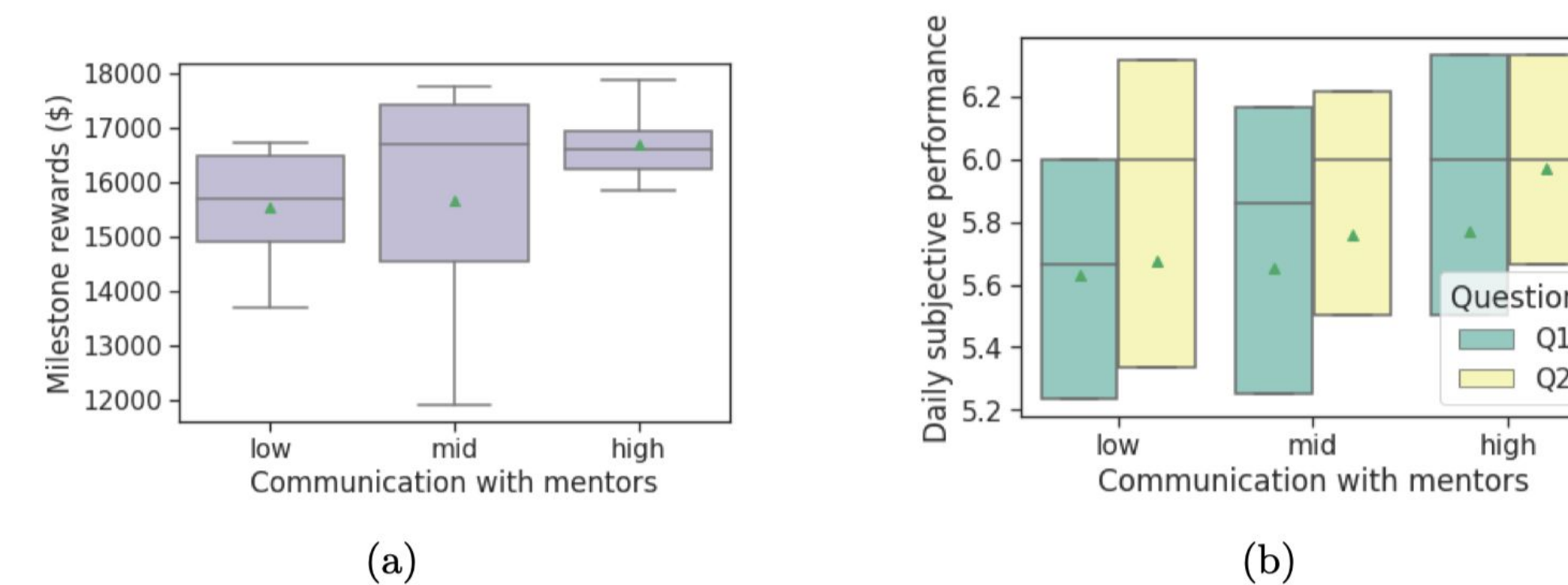**more internal communication means generally better, more consistent, results**

(c) (d) (a) (b)

interaction with other teams needs to be 'just right'

(a) (b)

people feel better about bigger teams, even though performance doesn't change

(a) (b)

more mentoring = higher performance, more agreement

(a) (b)

rhythm badges

A minimalistic wearable designed to measure face-to-face interaction

Vocal activity **Proximity** **Motion detection** (in development)

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