

## 1. Background & motivation

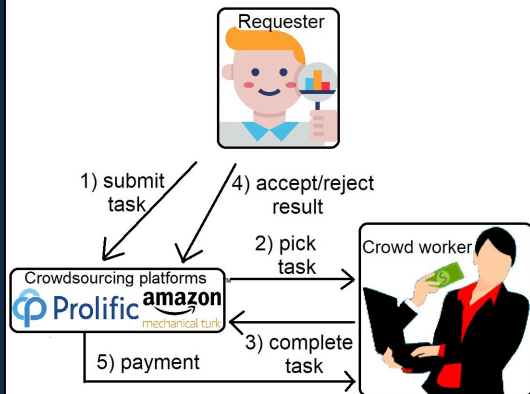


Figure 1: Crowdsourcing workflow

- Increasing work from home, decrease in health [1].
- Can cause musculoskeletal complaints together with mental issues [2].
- Crowd workers in risk group.
- Prior work only focused on mood impact on microtask performance [3]. Not on the health status.
- Health often placed under remote or office workers, but is that the correct classification?
- This study aims to analyze the health status of crowd workers compared to desk workers.
- Provides a subjective well-being and experienced health overview of crowd workers against desk workers.

## 2. Method

### SURVEY

- Survey with questions grouped in health **categories**:
  - **General questions**: general health, participant info and experienced health benefits & drawbacks.
  - **Healthy workplace**: comfort, ergonomics & indoor environmental quality [4].
  - **Physical well-being**: breaks, exercising and sleep [5].
  - **Social well-being**: social interactions, feeling connected and recognized [6].
  - **Emotional well-being**: negative emotions and positive emotions.
- 17 crowd workers recruited through Prolific\* and 9 desk workers recruited through snowball sampling.

\*<https://www.prolific.co/>

## 4. Discussion & Conclusion

- Desk workers with an office provide important ergonomics for preventing musculoskeletal issues, while crowd workers often cannot afford one.
- Stress is very common health problem. Desk workers reduce this with colleagues and crowd workers with the flexible and less mentally demanding tasks, while desk workers have stressful deadlines and demanding projects.
- Desk workers are healthier than crowd workers on all researched health categories, except stress levels.
- Further research can be done for more details on certain health categories.

## 3. Results

- Common health drawbacks for both were back pain, sore eyes, stress and reduced physical activity.
- Offices provide better ergonomics and room for physical activity.
- Crowd workers less stressed, due to flexible job and less mentally tasks compared to desk workers, but do not have colleagues for social interactions.
- Desk workers have better health benefits to drawbacks ratio.
- Crowd workers cannot afford good ergonomics, but do need one.
- Desk workers outperform crowd workers on social well-being the most due to more social interactions with colleagues.

Table 1: Survey multiple choice results converted to average scores.

Health aspects	Crowd workers	Desk workers
General	3.441	3.778
Healthy workspace	2.863	3.185
Physical well-being	3.061	3.319
Social well-being	3.256	4.111
Emotional well-being	3.243	3.801

## 5. References

- [1] S. Mann and L. Holdsworth, "The psychological impact of teleworking: stress, emotions and health," *New Technology, Work and Employment*, vol. 18, no. 3, pp. 196–211, 2003
- [2] A. Luttmann, K.-H. Schmidt, and M. Jäger, "Working conditions, muscular activity and complaints of office workers," *International Journal of Industrial Ergonomics*, vol. 40, no. 5, pp. 549–559, 2010.
- [3] Mengdie Zhuang and Ujwal Gadiraju, "In what mood are you today? an analysis of crowd workers' mood, performance and engagement. In Proceedings of the 10th ACM Conference on Web Science, pages 373–382, 2019.
- [4] S. Afroz and M. I. Haque, "Ergonomics in the workplace for a better quality of work life," in *Ergonomics for Improved Productivity*. Springer, 2021, pp. 503–511.
- [5] J. Kühnel, H. Zacher, J. De Bloom, and R. Bledow, "Take a break! benefits of sleep and short breaks for daily work engagement," *European Journal of Work and Organizational Psychology*, vol. 26, no. 4, pp. 481–491, 2017.
- [6] O. Hämmig, "Health risks associated with social isolation in general and in young, middle and old age," *PLoS One*, vol. 14, no. 7, p. e0219663, 2019.