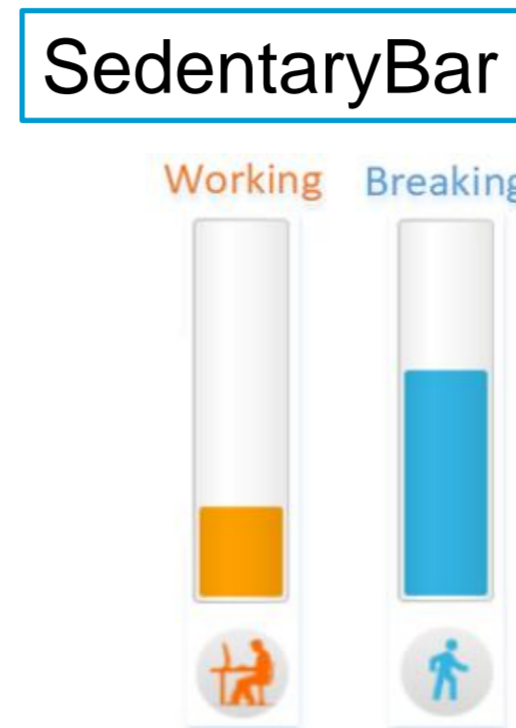
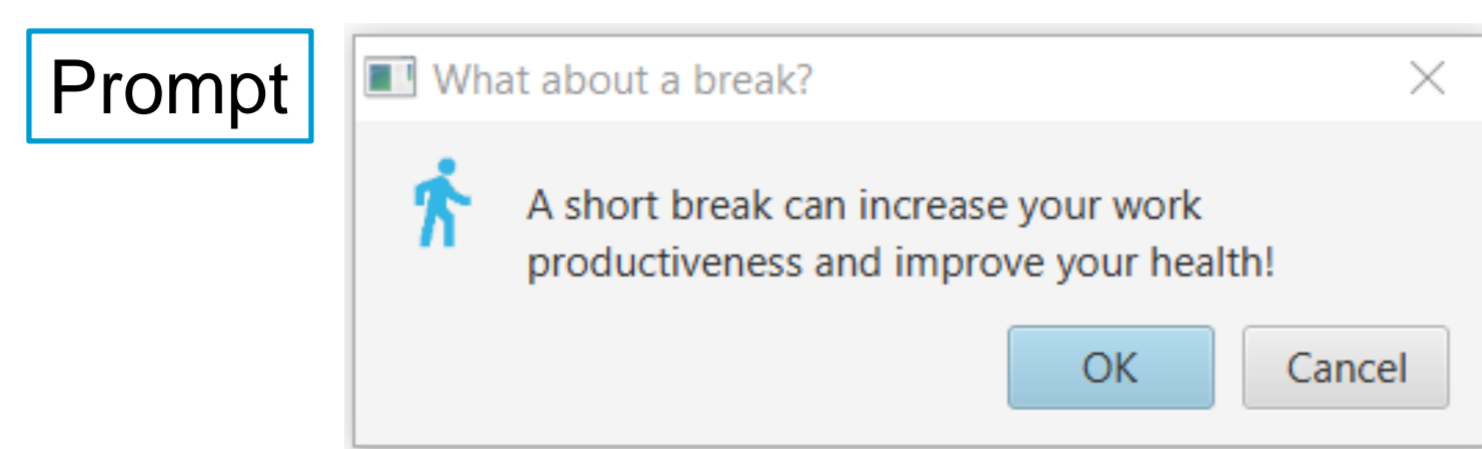


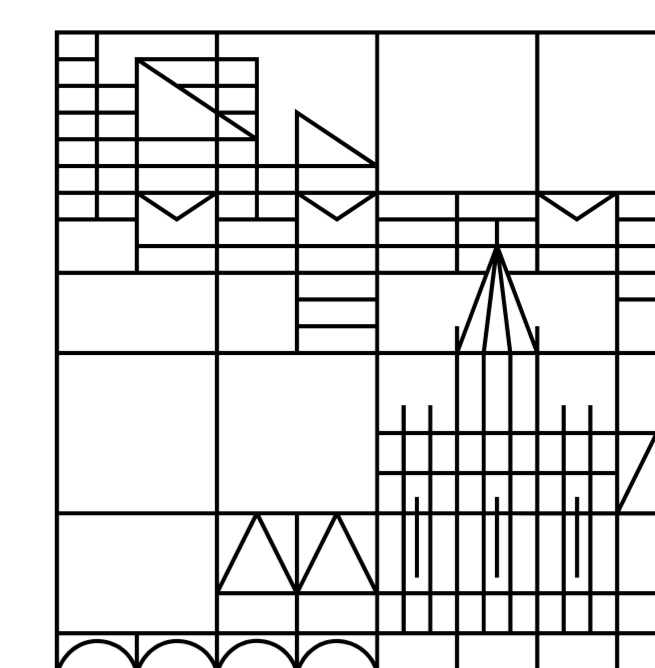
# The Point-of-Choice Prompt or the Always-On Progress Bar?

## A Pilot Study of Reminders for Prolonged Sedentary Behavior Change

Yunlong Wang, Harald Reiterer  
HCI Group, University of Konstanz, Germany  
{firstname.lastname}@uni-konstanz.de



Universität  
Konstanz



- The perceived interruption and usefulness suggested the SedentaryBar was more popular than the prompt during the study.
- The logged data of the participants' work durations showed the prompt was more effective than the SedentaryBar in reducing sedentary behavior.
- The disparity between the perceived usefulness and the objectively measured effect deserves a further investigation.

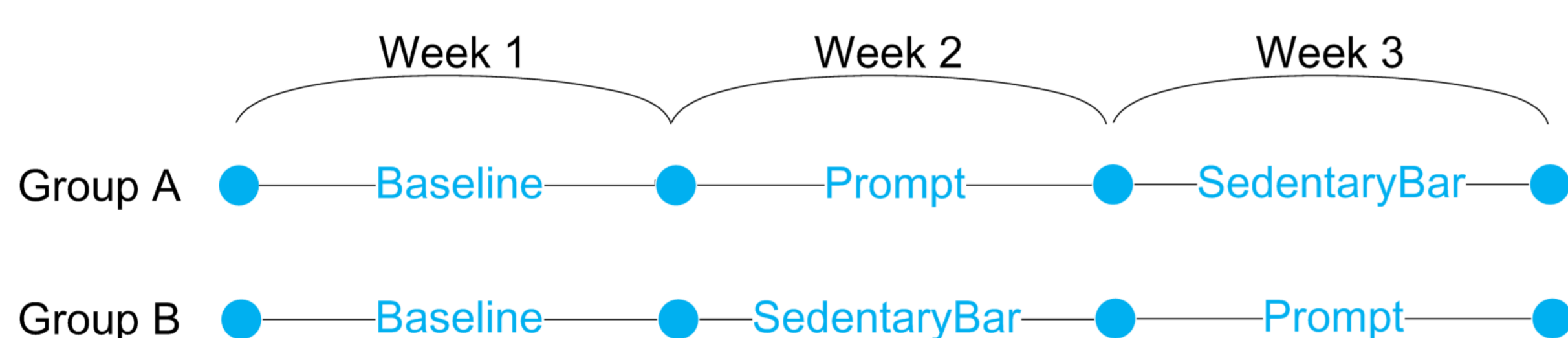
### Background

Prolonged sedentary behavior causes many health problems among screen-based workers. Greater increase in sedentary behavior was associated with a more detrimental change in clustered cardiometabolic risk, waist circumference, high-density lipoprotein cholesterol, and triglycerides, independently of the change in moderate-to-vigorous physical activity. Correspondingly, evidence showed that frequently interrupting sedentary behavior with light-intensity (e.g., walking) or moderate-intensity physical activity (e.g., climbing stairs) can improve overall health.

### Context Detection

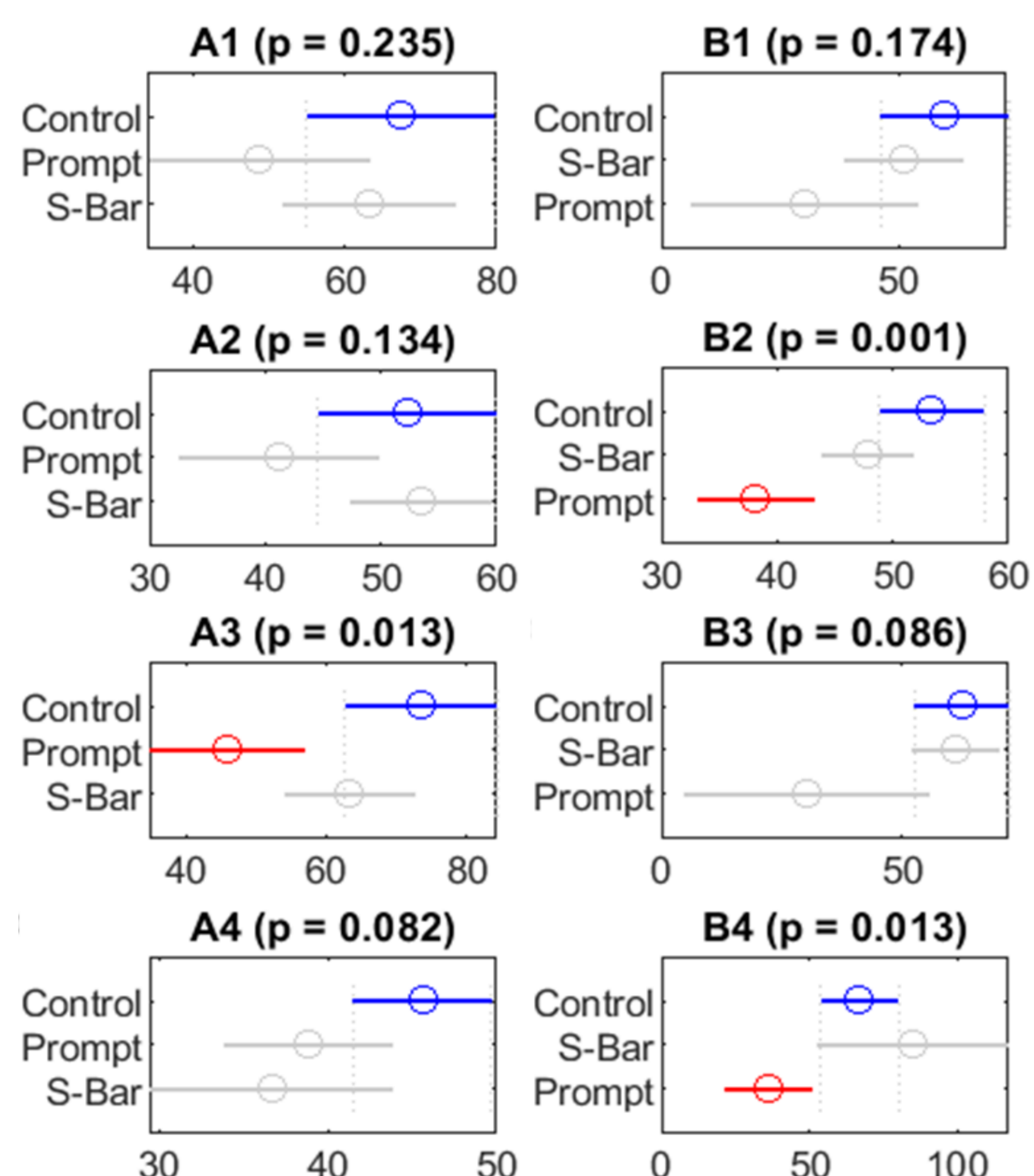
- Keyboard and mouse events.
- Body or face detection using the camera.

### Study Design



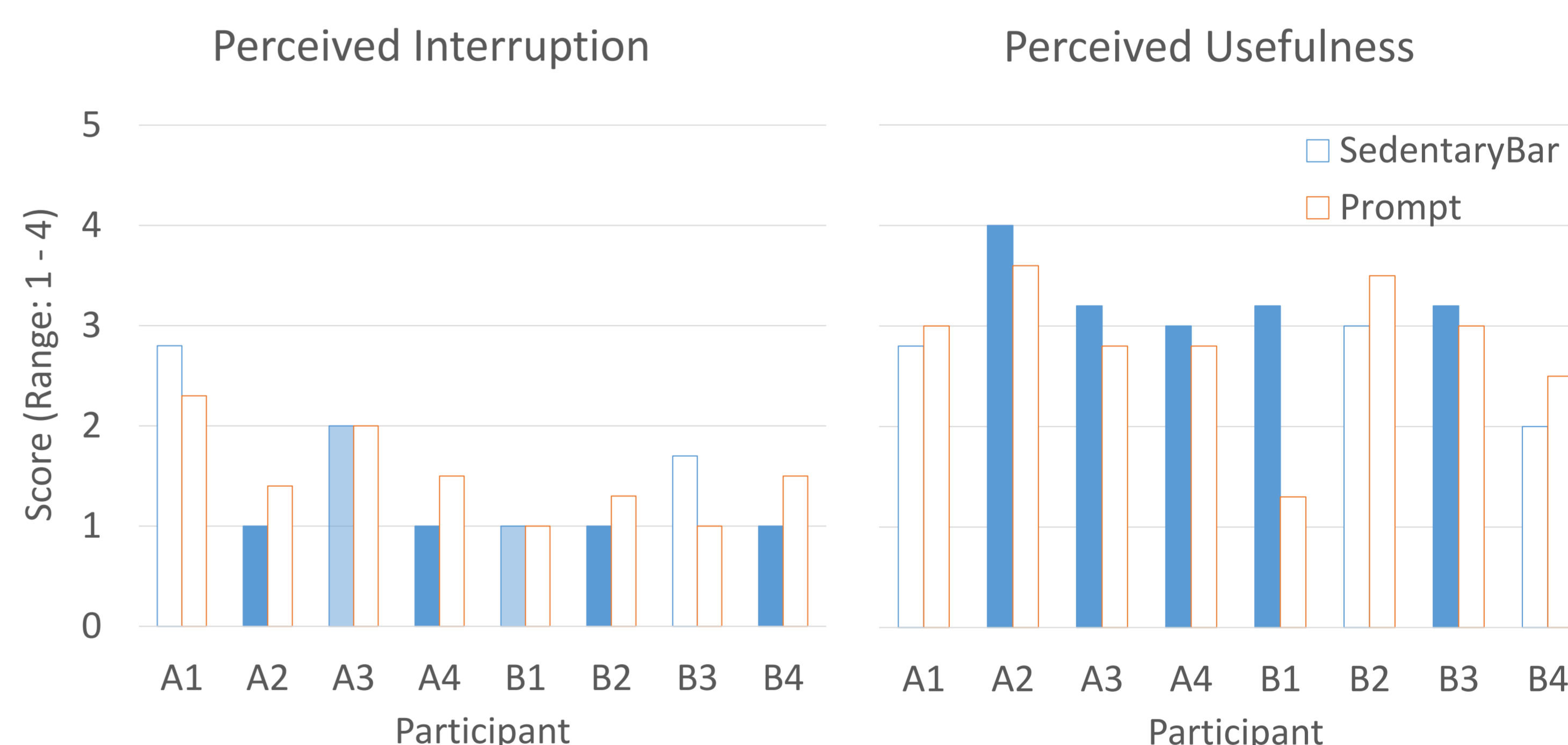
### Objective Results

- Durations of work sessions ( $t > 30$  min). S-Bar is short for SedentaryBar. The red bar refers to significant difference compared to the control condition.



### Subjective Results

- Participants' perceived interruption (the smaller the better) and usefulness (the larger the better) of the sedentary bar and the prompt. The bar is solid when the SedentaryBar wins.



- Participants' preferences and reported reasons.

Participant	Preference	Reason
A1	Prompt	The prompt is clearer and less annoying.
A2	SedentaryBar	The SedentaryBar allows preparation for breaks.
A3	SedentaryBar	The SedentaryBar shows more information than the prompt.
A4	Prompt	The SedentaryBar covers some content on the screen. It sometimes turns blue (breaking state) when I head down to write something, which is weird to me.
B1	SedentaryBar	I can't see the prompt when using multiple screens on my MacBook. The SedentaryBar is always there that I can still see it after the busy time.
B2	Prompt	The SedentaryBar is a little interruptive.
B3	SedentaryBar	The SedentaryBar is more visible and stronger than the prompt.
B4	SedentaryBar	The SedentaryBar is more interesting and more visible.

