## Study Goal

To examine how people use the combination of speech and touch to explore their personal data



• ~ 90 minutes

Tutorial

Learn and practice how to use speech and touch

Exploration (Main activity)

Explore your own Fitbit records.

Experimenters will observe the session

Interview

Interview about the experience of using speech and touch for exploring your data.

• ~ 90 minutes

**Tutorial** Learn and practice how to use speech and touch **Exploration** Explore your own Fitbit records. (Main activity) Experimenters will observe the session Interview Interview about the experience of using speech and touch for exploring your data.

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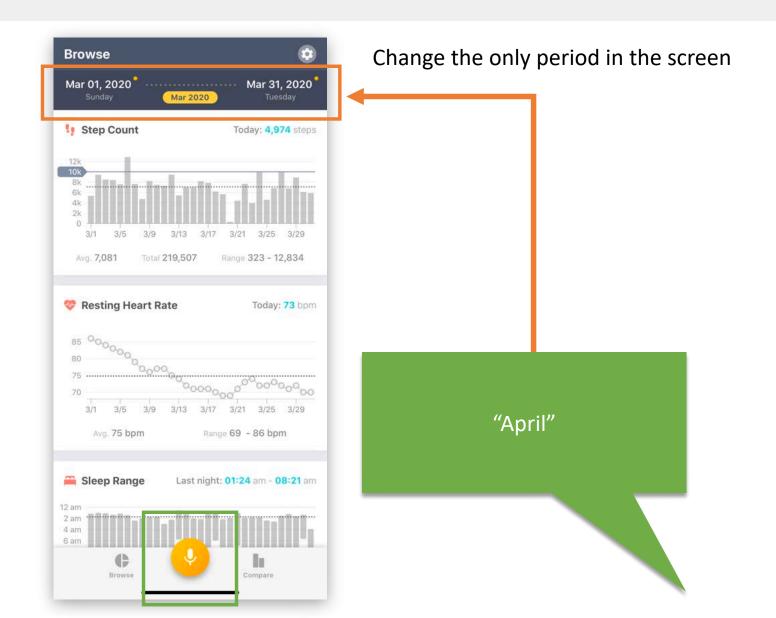
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#### **About Tutorial**

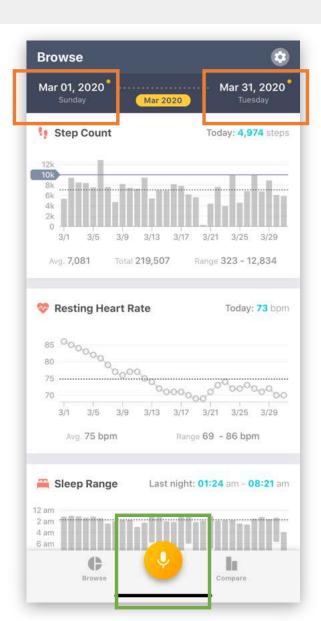
- We do this in order to familiarize you with Data@Hand.
- It will help you smoothly explore your data during the exploration session.

- We are not testing you.
   We welcome any questions you may have.
- We will start recording at the beginning of the tutorial.

## Speech through the Mic Button



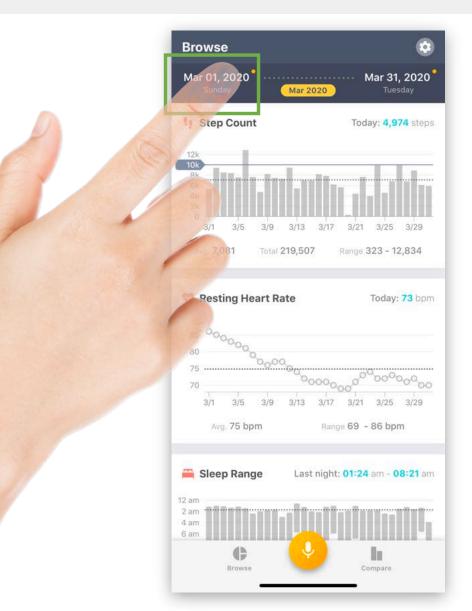
## Speech through Screen Elements



Which one should be changed?



## Speech through Screen Elements





#### **Example Period Expressions**

```
"This month" Apr 2020
"From March 1 to 20" — Mar 1 – Mar 20, 2020
"Summer 2019" — Jun 1 – Aug 31, 2019
"Since New Year's Day" — Jan 1 – Today (Apr 10)
"Around the last Christmas" ——— Dec 22 – 28, 2019
"All data" — The entire period of Fitbit use
"Initial date (of Fitbit)" (Date) —— The first date of Fitbit
```

#### **Entering Comparison Mode by Speech**

- Comparing two periods: use the verb "Compare"
  - ✓ <u>Compare</u> [period] with/and [period]
  - ✓I want to *compare* [period] with [period]

(not limited to the above phrases)

- Comparing by cycles: specify the cycle
  - ✓ Step count by days of the week (days of the week)
  - ✓ Sleep by month (months of the year)
  - ✓ Show the months-of-the-year pattern (months of the year)

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# Speech through Chart Elements

Issue a speech command in context of the corresponding period



- Modify the period assigned
- Compare the period with a new one
- Browse the period data of another data source
- Get the day with maximum value
- ...

## Highlighting by Condition Queries

- Highlight by the measurement value
  - "...days I walked more than 10,000 steps"
  - "...days I woke up earlier than 8 am"

(not limited to the above phrases)

- Highlight the <u>maximum/minimum</u> value in the current period
  - "maximum/highest/... step count"
  - "earliest wake time"
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