A diary study and redesigning of the Fitbit Flex sleep monitoring application
FITBIT Flex Device App

There are six-functional categories in Fitbit App. The functions can be divided into Activity, Weight, Sleep, Food, and Water categories.

Fitbit Flex is a flexible rubber wristband type wearable device connected with the activity tracking and sleep monitoring.
DIARY STUDY

A diary study is useful in capturing users’ experiences in daily life.

**Method of evaluation:** Diary study and Interview

**Duration:** 2 weeks

**Participants:** Five people

**Materials:** 5 Fitbit Flex device, Profile form, Consent form, Satisfaction questionnaire, Interview questionnaire

**Process:**
1) Kickoff meeting
2) During the online diary study
3) One to one interview

For this project, the investigator had to obtain the experiences and feedbacks in the users’ daily lives feedback from the details of device and App uses. Therefore, a diary study was chosen because it is an effective method in learning how the user interacts with the product in daily life, how the user learns about the product, and what kind of interaction the user has in certain environments.
The following graph represents the mean value of the satisfaction about the five functions shown in the table based on the result as a result of the satisfaction questionnaire. The graph shows the Activity function received the highest satisfaction, closely followed by the Water function. The function to receive the lowest satisfaction was The Sleep function, although this was only considered marginally worse than the Food function.
RESULT-UI problems

1. Sleep Pattern
2. LOGGED SLEEP
3. 6 h 23 mins asleep
4. Awake for 7 mins (7x)
5. Restless for 30 mins (15x)
6. Time Asleep

- 23:32 – 06:32
- 7 mins awake (7x)
- 30 mins restless (15x)

Friday 29 August
## Concern about redesigning

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REDESIGN

Problem 1
The pattern graphs on the main screen are unclear.

There is less meaningful information for improving sleep pattern.

Solution 1
Presenting the details more efficiently.

Providing information about the quality of sleep and target goal.
Problem 2
It is not effective finding the collecting data

Solution 2
The method of data collection has been changed.
REDESIGN

2. Motivational Support

Problem 3
There is no information for healthy sleep (All participant needed this function)

Solution 3
Designing sleep coach function

Providing more detailed information about sleep
NEW Sleep Monitoring App: FITBIT ‘ZZ’

1. **TOTAL SLEEP**
   - Total sleep: 7h 15m
   - 95% of sleep quality
   - Deep sleep: 4h 55m
   - Light sleep: 2h 10m
   - Awake: 30m

2. **SLEEP TRENDS**
   - Days: Mon, Tue, Wed, Thu, Fri, Sat, Sun
   - Depicting sleep pattern over the week

3. **TARGET GOALS**
   - Total Sleep Recommendation: 8h 00m
   - Wake-up time: 7:00AM
   - Sleeping time: 11:00PM

4. **SLEEP COACH**
   - Write away your worries
     - Deal with worries or a heavy workload by making lists of things to be tackled the next day. If you tend to lie in bed thinking about tomorrow’s tasks, set aside time before bedtime to review the day and make plans for the next day. The goal is to avoid doing these things when you’re in bed.

   - Exercise regularly
     - Moderate exercise on a regular basis, such as swimming or walking, can help relieve some of the tension built up over the day. Make sure that you don’t do vigorous exercise too close to bedtime, however, as it may keep you awake.