



Participation Reference Guide

SIA-NUS Digital Aviation Corp Lab
Employee Wellness Study – Data Validation Study (Phase 2)
NUS-IRB-2020-255



About the Study

Introduction

The goal of this study is to develop for SIA a novel fatigue modelling and prediction model with consideration of individual heterogeneity and complex interactions that exist among fatigue factors to provide more accurate fatigue predictions and to enhance pilot and cabin crew safety and well-being while upholding levels of performance.

Phase 1 of the study emphasized on data collection from participants, while **Phase 2**, the current phase, will focus more on validation of the data collected from Phase 1.

About the Study

Reimbursement

Reimbursement includes redemption of (a) Fitbit Sense 2 (Worth S\$428) (*for new participants only*) and (b) KrisPay Miles (Worth up to S\$268).

(a) [For new participants]

To keep your Fitbit Sense 2:

- Complete **at least 70% of the minimum questionnaire-based tasks** (per rostered flight)
 - Fatigue Questionnaire
 - PVT
 - NASA Workload Index
- Wear tracker for **at least 70% of the time**
- Complete the **Weekly Well-being Questionnaire** once a Week

About the Study

Reimbursement

(b) [For new and existing participants]

To earn the **KrisPay Miles (Worth up to S\$268)**:

The **S\$268 KrisPay Miles** include

- Up to **S\$80 worth** for completing routine tasks such as submitting questionnaires and wearing of Fitbit watch
- A bonus reward of **S\$188 worth** for fulfilling the following at the end of the study period:
 - 80% completion rate for wearing of Fitbit watch
 - 80% completion rate for the Weekly Well-being Questionnaire once a week
 - 80% completion rate for the minimum questionnaire-based tasks

Recurring Tasks Requirements

The tasks listed below are to be completed only with the Wellness Buddy Mobile App. Completing tasks outside of specified timeframes would render them invalid.

| Tasks to Complete | Every Flight (Short & Long Haul included) |
|--|---|
| (i) Pre-Flight (Within 4 hours before departure time) | |
| Fatigue Questionnaire #Mobile App x 01 | ✓ |
| PVT Task #Mobile App x 01 | ✓ |
| (ii) Post-Flight (Within 3 hours after landing) | |
| Fatigue Questionnaire #Mobile App x 01 | ✓ |
| PVT Task #Mobile App x 01 | ✓ |
| NASA Task Load Index #Mobile App x 01 | ✓ |
| (iii) Once a Week (Between Monday - Sunday) | |
| Wellbeing Questionnaire #Mobile App x 01 | ✓ |

*Turnaround flights are considered as two separate flights.

Pilots will use the iPad version of the app, while Cabin Crew will use the Mobile App version.

Frequently Asked Questions

What is the duration of this study?

1 month

Frequency of wearing tracker

24/7, including sleep time

How long is each Psychomotor Vigilance Task (PVT) test?

3 minutes¹ per attempt on Wellness Buddy Mobile App.

¹ 3 minutes is the minimum scientifically proven duration for the accurate capture of attention span

Frequently Asked Questions

How much KrisPay Miles do I earn per task?

| | |
|---|-------------------|
| Fatigue Questionnaire | 20 KrisPay Miles |
| Psychomotor Vigilance Task (PVT) | 100 KrisPay Miles |
| NASA Task Load Index | 40 KrisPay Miles |
| Positive Affect & Wellbeing Questionnaire | 100 KrisPay Miles |
| Wearing the Fitbit Sense 2 Daily (When awake) | 100 KrisPay Miles |
| Wearing the Fitbit Sense 2 to Sleep Daily | 100 KrisPay Miles |

*Completing excess tasks for the same flight will no longer contribute to reward points (Refer to Page 5)

Where can I check my task submission records & accumulated rewards?

Wellness Buddy Mobile App → “Rewards”

Frequently Asked Questions

How often should I sync my Fitbit (Sense 2) to the Fitbit app on my device?

Once a day at minimum, as often as possible

Can I attempt the tasks while my device is offline during flight?

Yes. Your device will store local records of completed tasks.

When you reconnect back online:

- Phone and iPad: Stored data will be automatically pushed to the Wellness Buddy mobile app

Frequently Asked Questions

My Wellness Buddy app interface does not look the same as another participant's

This is normal; your contents in the Wellness Buddy app are individualized based on your recorded sleep behavior, physical activity behavior and submission of logs. They are updated on a regular basis.

Frequently Asked Questions

Switching from Data Collection Study to Data Validation Study (For applicable participants)

A prompt will be sent via your Wellness Buddy mobile app (Fig 1); accept via the Settings page on the app to commence (Fig 2). If you encounter technical difficulties or have any queries, you may write to Wellness_Study@singaporeair.com.sg.

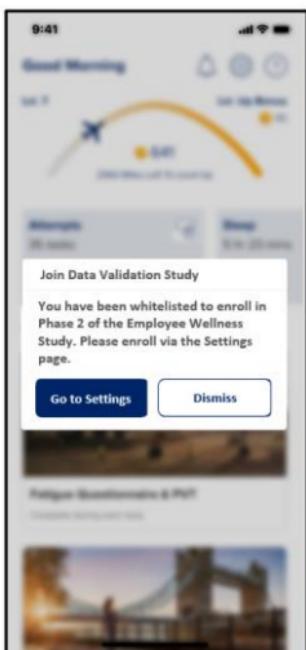


Fig 1

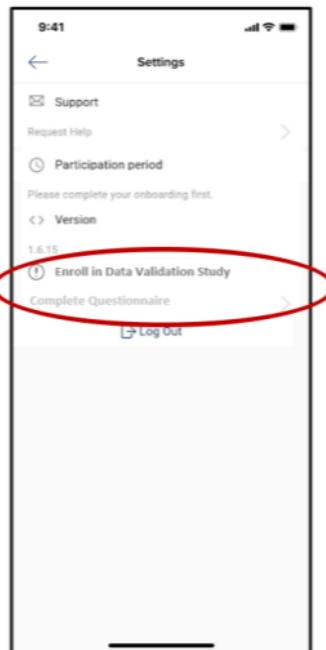


Fig 2

Thank You for
Your Participation!

