Ryan Knight

Biomechanics Technician

University of Roehampton

Profile Background:

- Male, young professional
- Working for the University of Roehampton in the Sports and Exercise Department
- Runs classes where multiple participants wear heart-rate monitoring belts to view live heart-rate data

Goals and Tasks:

- Ryan seeks an easy way to view live heart-rate data for all participants on one central display.

Anxieties and Motivations:

- Ryan is dissatisfied with the current method of viewing these results individually through each participants' connected phone application.

Frustrations and Concerns:

- Ryan is frustrated that each participant can currently only view their own results and that he and the class cannot view the classes' overall results.

Needs and Expectations:

- Ryan requires a website running on the central computer in his lab that remotely connects to each heart-rate monitoring device and displays results from all connected devices on the screen.

Scenario:

Ryan enters the Sports and Exercise Science lab at the University of Roehampton along with a few students. Each student is given a heart-rate monitor belt that is equipped with Bluetooth Low Energy (BLE) technology.

Each student turns on the device and Ryan pairs each device with the website. The students begin exercising, for example on stationary bikes or a treadmill. As the students exert different levels of physical exercise they view the corresponding heart-rate levels on the website that is connected to a monitor at the front of the lab.

This allows Ryan to view the results of each student at once, in one consolidated view.

Sports and Exercise Students

University of Roehampton

Profile Background:

- Young, athletic, students
- Studying at the University of Roehampton
- Participate in classes where multiple participants wear heart-rate monitoring belts for educational purposes

Goals and Tasks:

- These students seek an easier way to connect and view live heart-rate data.

Anxieties and Motivations:

- They are dissatisfied with the current method of viewing these results individually through their connected phone application as it is cumbersome and requires unnecessary preparation for class.

Frustrations and Concerns:

- They are frustrated that they are required to download an app on their own mobile device.

Needs and Expectations:

- They would appreciate a website running on the central computer in the lab that remotely connects to each heart-rate monitoring device and displays results on the screen.

Scenario:

The students enter the Sports and Exercise Science lab at the University of Roehampton along with their professor. Each student is given a heart-rate monitor belt that is equipped with Bluetooth Low Energy (BLE) technology.

Each student turns on the device and instead of pairing their own device with an application on their phone, the professor pairs each device with the website.

The students begin exercising, for example on stationary bikes or a treadmill. As the students exert different levels of physical exercise they view the corresponding heart-rate levels on the website that is connected to a monitor at the front of the lab.

Sports and Exercise Science Researchers

University of Roehampton

Profile Background:

- Academic professionals
- Working for the University of Roehampton in the Sports and Exercise Department
- Analyze exercise data for their research

Goals and Tasks:

- These researchers seek data from various exercise examples to aid in their research or for their own personal knowledge.

Anxieties and Motivations:

- They are currently unable to save data from sessions that could be beneficial to them.

Frustrations and Concerns:

- They are frustrated that they can currently only view live data and cannot store data from the session for further analysis.

Needs and Expectations:

- They would appreciate a way to save data from a session to a database for further investigation afterwards.

Scenario:

A few academics from the Sports and Exercise Science department at the University of Roehampton enter the lab along with a few athletes. Each athlete is given a heart-rate monitor belt that is equipped with Bluetooth Low Energy (BLE) technology.

Each athlete turns on the device and pairs it with the website. They begin exercising for testing. After the session, the researchers wish to see the overall heart-rate and spikes in heart-rate during certain movements. They are able to achieve this by accessing a database that has stored data from the session.