

To: Dr. Erika Paterson, ENGL301 Professor

From: Ethan Fung, ENGL301 Student

Date: June 22, 2022

Subject: Proposal for an Electronic Queuing System for Popular Gym Equipment at UBC Birdcoop Fitness Centre

Audience

The intended audience for this proposal is Darren Stolz, who is the Facility & Equipment Coordinator of in UBC Recreation Centre.

Introduction

The UBC Recreation Centre plays a significant role in the life of many UBC Students. It helps the students strengthen their physical health and boost their mental health during the intensive study period at UBC. As the COVID restriction is being eased, more students visit UBC Recreation Centre, especially the Birdcoop Fitness Centre which is known for its weightlifting equipment. However, the increase in the number of visitors to Birdcoop Fitness Centre causes a shortage of popular gym equipment such as squat racks, bench racks, and lifting platforms. Thus, more users of the gym have to wait for an uncertain amount of time standing next to the equipment before using popular equipment.

Statement of the problem

There are a total of four bench racks, five squat racks, and six lifting platforms in Birdcoop. It may seem that they are a lot, but the demand for them is also very high as these three kinds of gym equipment are used for five core exercises in weightlifting (Bench Press, Squat, Deadlifting, Overhead Press, and Barbell Row). Although waiting for the popular equipment in Birdcoop Fitness Centre has become more frequent, there is no systemic way of queueing for equipment at the gym. The traditional way of waiting for equipment is just to stand near the equipment until the current user finishes exercising with the equipment. This way of queueing wastes users' time spent in the gym by making them stay at one spot not being able to exercise. Also, this way of waiting creates conflicts between users because it is often not clear who started to wait first or how many people are waiting to use the equipment.

Proposed solution

A possible solution for this problem is to implement an electronic queuing system using a UBC card, which all users need to enter the gym, for popular equipment of Birdcoop Fitness Centre. By installing a UBC card reader for each piece of equipment and connecting them with a queueing program, users would easily put themselves in the queue for that equipment. Also, by displaying the current status of the queue for each piece of equipment on mobile and on the TV in the gym, users can do other exercises until their time for the equipment comes. This would reduce students' time wasted in the gym and prevent conflicts between users due to the confusion caused during waiting.

Scope

To determine the feasibility of installing an electronic booking system in Birdcoop Fitness Centre, I will ask the following questions:

1. How many people are having difficulties caused by the current waiting system in Birdcoop Fitness Centre?
2. How much time can be saved for each student approximately by not waiting near the equipment when they want to wait for it?
3. What are the kinds of equipment in Birdcoop that are most popular but short in supply?
4. What is the average/appropriate using time of the popular equipment in Birdcoop?
5. How much cost would the installation of UBC Card readers for each piece of equipment and implementation of electronic queueing service?
6. What are possible challenges or side effects caused by introducing the new electronic queueing system?

Methods

The primary data sources will be from online surveys conducted among users of UBC Birdcoop Fitness Centre as well as observation of the facility for a few weeks. Also, I will conduct interviews with staff working at Birdcoop about whether they have witnessed users having difficulties or conflicts due to waiting for gym equipment. As a second source, I will contact UBC Athletics and Recreation to calculate estimated the cost for installing an electronic queueing system in Birdcoop Fitness Centre.

My qualifications

I have been exercising in a gym for about 3 years including the last 9 months in UBC Birdcoop Fitness Centre. Thus, I understand why certain gym equipment is in more demand than others. Also, I have been using Birdcoop regularly at least three times a week, so I know the common difficulties that users experience at the gym.

Conclusion

The traditional way of waiting for popular gym equipment in Birdcoop Fitness Center, combined with an increase in the number of visitors is causing a waste of time for users waiting and unnecessary conflicts between them. These problems can be effectively resolved by introducing an electronic queueing system for the popular equipment in the gym. If permission for this study is granted, I will investigate the need to improve the queueing system in Birdcoop Fitness Centre and analyze the feasibility to implement a new electronic queueing system in the facility as stated in the scope and methods of this proposal.