

**Increasing Accessibility to the Exercise Equipment at
the
Student Recreation and Wellness Center at CSULB**

April 26, 2011

To: James Ahumada and Asha Nettles

B. Richards

T. Wong

T. Nguyen

1250 Bellflower Blvd.
Cal State Long Beach
Long Beach, CA 90840
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James Ahumada
Asha Nettles
Associated Students, Inc. Student Government
1212 Bellflower Blvd. USU-311
Long Beach, CA 90815

Dear Mr. Ahumada and Ms. Nettles:

We have enclosed our empirical report on how to create better accessibility to the exercise equipment at the Student Recreation and Wellness Center (SRWC) at California State University Long Beach (CSULB).

Our research, conducted through distributing over 200 surveys using the online survey website SurveyMonkey, revealed that the majority of students feel that the SRWC is overcrowded and consists of too many wait lines for the more popularly used gym equipment. We found that the average wait times to use the gym equipment ranged from 10-15+ minutes. We also interviewed Maureen MacRae, Fitness Coordinator for the SRWC and Donna Stevenson, a personal trainer at 24 Hour Fitness to compare how other gym facilities reduce their wait lines as well as to determine if it was possible to make changes to the SRWC. From our research, we discovered that the calf raise machines, curl machines, recumbent bikes, and the rock-climbing wall were the least used exercise equipment. The most popular equipment was the cardiovascular machines such as the treadmills, ellipticals, and free weights.

From our research findings, we recommend that the least popular equipment should be replaced with ones that are more in demand. Reducing the number of exercise machines that are not used as often will allow more availability to the ones that the majority of students use to work out, enabling shorter and fewer waiting lines. Also, by rearranging the floor plan of the SRWC, by placing the popular equipment throughout the facility instead of clumping together, will help reduce overcrowding.

As concerned CSULB students, we are willing to work on this project further to assess if improvement to the SRWC can be made possible to improve student satisfaction and increase student involvement with the services CSULB provides. Please contact us by phone at (714) 111-1111 or by email at mail@gmail.com if you have any questions. Thank you for your time and we look forward to speaking to you soon.

Sincerely,

B. Richards, T. Wong, and T. Nguyen

Executive Summary of the SRWC Study

The objective of our study is to assess and compare customer satisfaction at the Student Recreation and Wellness Center (SRWC) in terms of: availability of gym equipment and length of wait times for that equipment, with the 24 Hour Fitness gym facility as well. Long wait times affect the student's ability to complete their workout in the amount of time they have.

We conducted a survey, which we distributed to students via social networking sites and Beachboard. In order to determine the ability of changes to be made at the SRWC we also interviewed Maureen MacRae, Fitness Coordinator for SRWC, and Donna Stevenson, a personal trainer from 24 Hour Fitness. The results from these surveys and interviews gave us the information we needed to make realistic suggestions on how to improve the SRWC setup.

Our surveys helped determine which equipment was the most popular and which equipment was least popular, and could possibly be totally removed or downsized. These surveys and interviews also helped us assess how long wait times actually were, and how these wait times could be reduced. By collecting surveys from students who attend both the SRWC and a local gym we were able to gather data on how other competitors use their resources to eliminate the lengthy wait times.

Based on the interviews and surveys that we conducted we determined that current wait times on the most popular equipment are unacceptable to students. The average wait time for most was 10-15+ minutes. Our surveys helped us determine that the least popular equipment included: calf raise machine, curl machine and other machines that target specific body parts. Also that the most used equipment included: treadmills, ellipticals and free weights.

Our group recommends removing or downsizing the equipment that has the least amount of traffic and replacing it with more of the popular equipment. By opening up more machines for simultaneous usage wait times can be reduced. It will also increase customer satisfaction and enrollment rates.

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Introduction to Increasing Accessibility to the Exercise Equipment at the Recreation Center

Since the opening of the Student Recreation and Wellness Center (SRWC) in the fall of 2010, a large majority of CSULB students work out and make use of the exercise equipment and services made available. However, with the large population of CSULB students (estimated to be 37,000), it makes it difficult for all students to be able to utilize the exercise equipment within the facility due to overcrowding. This issue causes some students to prefer to work out in their own local gym, where gym equipment is made readily available to them without having to wait in line. It also discourages other students who have used the recreation center into not going as often due to the lack of variety in equipment. With Associate Students Inc. (ASI) and the University Student Union Board of Trustees commitment to ensuring the welfare of the students, actions must take place to improve the accessibility to exercise equipment for all students. Some of the exercise equipment in the SRWC are used more than others such as the cardiovascular equipment (ex. treadmills and ellipticals). This is most likely due to the majority of students' preferences in what they want to work out on. By replacing the less popular exercise equipment with those that are in high demand, it could help increase the popularity of the SRWC for students who still haven't gone. It could also encourage students to make use of the gym facilities they are paying for as part of their tuition.

In this report, we state the objectives of our project, discuss an online survey using www.surveymonkey.com to access opinions, and review interviews from two different SRWC staff members to determine the feasibility of our suggested changes and present our recommendations. The final sections include an analysis of our results and suggestions to improve the accessibility to the exercise equipment. We provide our research and options that may help Associated Students Inc. and the University Student Board of Trustees be able to make the necessary changes to improve the quality and usability of exercise equipment among students.

The Student Recreation and Wellness Center was built for the students so that they could exercise on campus, which provides a much better convenience than having to commute elsewhere to other gym facilities such as 24 Hour Fitness. Our research on trying to increase the accessibility to the exercise equipment at the Student Recreation and Wellness Center is important in improving overall student satisfaction and to encourage students to be more involved in using the facilities CSULB provides, especially since ASI's main objective is to provide resources they identify to be necessary for student body's interests and needs.

Objectives in Improving the Student Recreation and Wellness Center (SRWC)

Our research objectives were to find ways to improve the accessibility to the exercise equipment and to figure out what were the most popular and least popular exercise equipment used within the Student Recreation and Wellness Center. We wanted to confirm that the majority of CSULB's student population also agreed that the SRWC has a problem of overcrowding, and with lines for the exercise equipment that are in high demand. We also researched the differences in gym equipment and their popularity. We wanted to gather responses from the rest of the student body on how they felt about the SRWC and their preferences on what specific gym equipment they work out on. We also wanted to evaluate why some students would rather work out at their local gym such as 24 Hour Fitness and how their exercise equipment/programs compare to the SRWC. With all of our research, we intended to discover potential improvements in the type of equipment at the Student Recreation and Wellness Center.

Methods for Evaluating the accessibility to Equipment at the Student Recreation and Wellness Center and 24 Hours Fitness

When our research group first started collecting data, our group was not sure how it would turn out. Observation is a critical part of any research study. We went to the Recreation Center during peak hours and observed the activities in the facility. After walking around the Student Recreation and Wellness Center, we noticed that there were several waiting lines for the most popular equipment. We know this has been an issue for majority of students at CSULB, so we began to investigate. By conducting a student survey and interviewing some of the staff members at the SRWC, our research group was able to compile a large amount of information about the accessibility of the different types of gym equipment. In addition, we began researching other gym facilities like 24 Hour Fitness to see how they deal with the problem of overcrowding and lines and how effective these programs are for reducing the issues.

Student Survey and Questionnaire

Student surveys provided our group with first-hand responses and feedback. Our group created a survey on a website called SurveyMonkey (<http://surverymonkey.com>). After the survey was created, we quickly distributed over 200 surveys using a networking website called Facebook (<http://www.facebook.com>). We sent surveys out to students who go to the Recreation Center. Our group was able to gather 51 responses from these students within a one week period of March 20-26. Our group wanted to know who goes to each facility and how often they work out. Our group also wanted to know what equipment was most popularly used and how long students must wait in order to use it. We asked students these questions:

1. Do you think the Rec. Center is overcrowded?
2. How often do you work out at the Rec. Center?
3. Do you think there's enough work out equipment that fit your workout needs?
4. What equipment do you use the most?
5. Do you have to wait a long time to use the gym equipment? If yes, how long would you have to wait?
6. What equipment do you use the least?

Interview Process

Interviewing a Fitness Coordinator and also a Fitness Trainer gave us some good insight about the facility that we normally do not see from outside observations. Theresa was able to interview a Fitness Coordinator, Maureen MacRae via email on April 5th, 2011. Theresa asked her the following questions:

1. What is the budget provided for the exercise equipment?
2. How much does the maintenance cost to keep up the exercise equipment?
3. Is it possible to rearrange the floor plan of the gym equipment?
4. What areas of the gym are most popularly used?
5. What areas of the gym are not as popularly used?

Tu was able to interview a Fitness Trainer named Donna Stevenson at 24 Hour Fitness on April 4th, 2011. Tu had received previous personal training by Donna before and they both have had to deal with the lines to use the equipment first hand. Our group wanted to know if this overcrowding situation had remained the same or if it got worse. Our group also wanted to know their strategic plans of how to solve this problem. Tu asked her the following questions:

1. What are the most popular pieces of equipment you normally use to train members?
2. Do you have to wait in line to use that equipment? If yes, how long?
3. Describe a typical day during peak hours.
4. What are some the strategies the management team has in place in terms of solving the overcrowding issue?
5. Do they have a big budget if they need to buy more equipment?
6. Is it possible to rearrange the floor plan of the gym equipment?

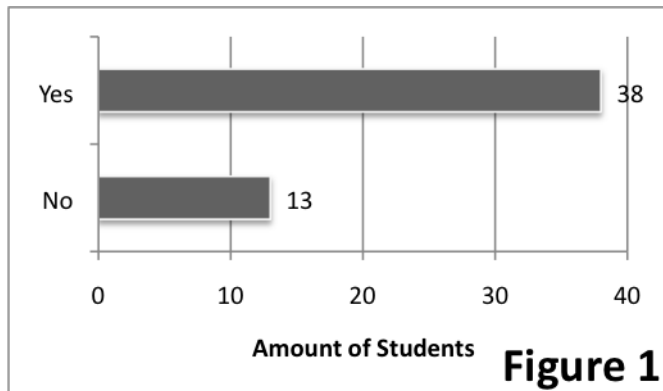
Results/Facts

This section gives the results of our online surveys and our interviews with the Fitness Coordinator and Fitness Trainer.

Student Survey

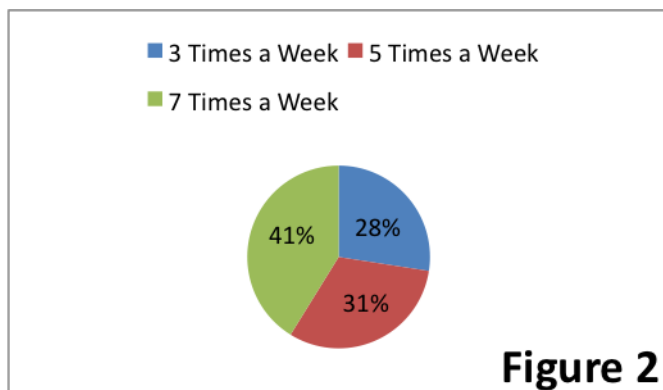
The results below represent the responses from an online survey of 51 CSULB students conducted through Facebook.

1. Do you think the Rec. Center is crowded?



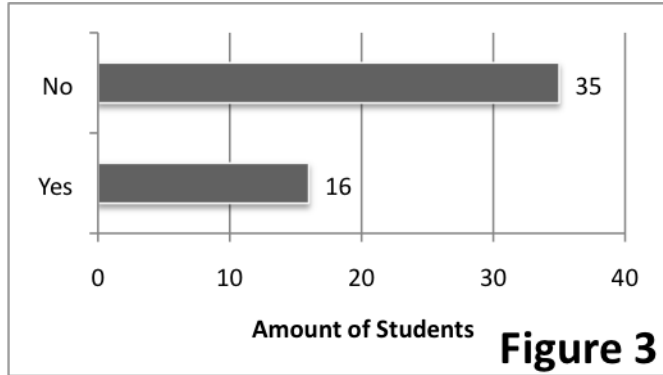
Many students answered “yes” because ever since the recreation center opened, there has been a high level of traffic that caused the inaccessibility of the equipments. The management team did not purchase sufficient amount of exercise equipments to compensate the crowds. So when the students have to wait to use the equipments, they feel that the facility is too crowded.

2. How often do you work out at the Rec. Center?



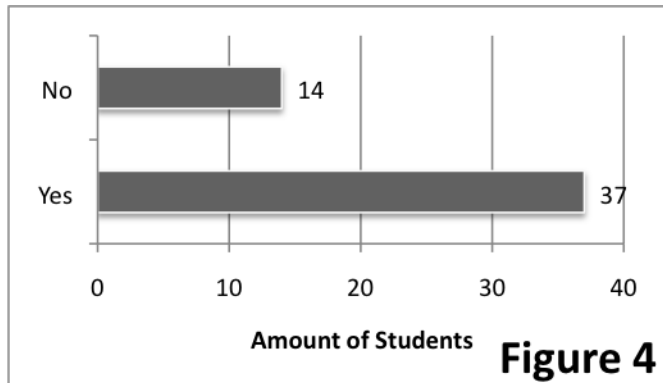
From the students’ survey, a high percentage of the students said that they work out seven times a week at the recreation center. While the other percentages of the students said they work out at least three to five times a week. If there are that many students who attend the recreation center regularly, their work out plan could be interrupted due to the lack of equipments.

3. Do you think there's enough work out equipment that fits your workout needs?



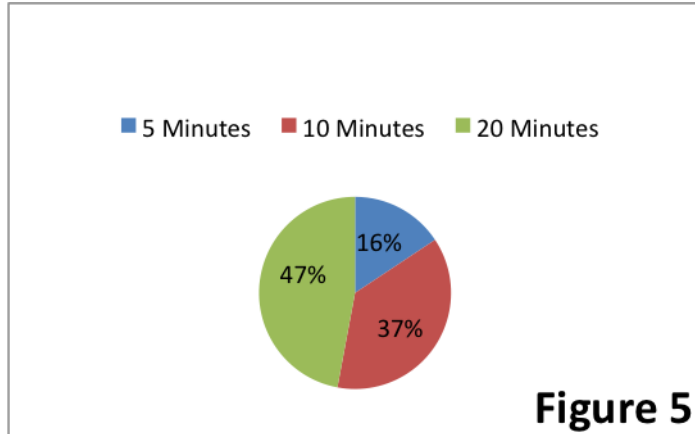
A high percentage of students answered “no” because there are insufficient amount of equipments for them to use. Usually they would have to wait a minimum of five minutes before they could use the equipments they desire.

4. Do you have to wait a long time to use the gym equipment?



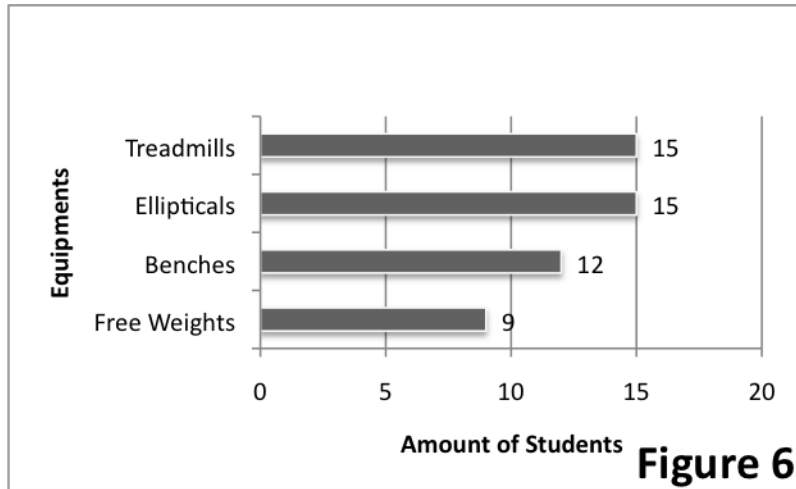
Many of the students said yes because there were insufficient amount of equipment to be shared between the students.

5. How long do you have to wait in order to use the equipments?



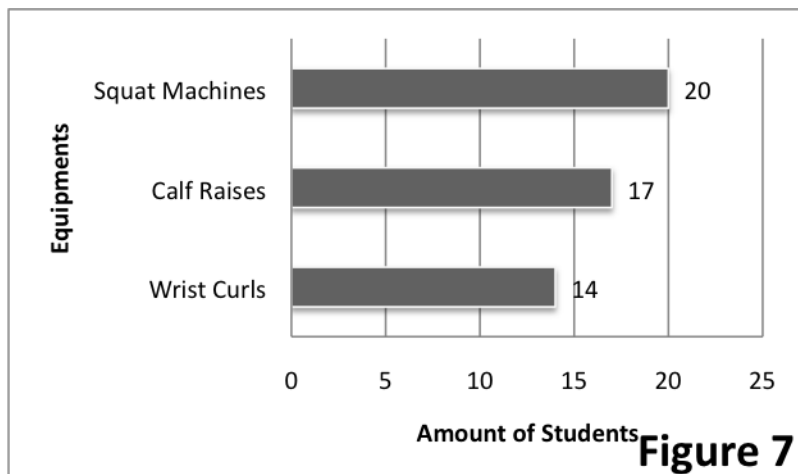
This graph demonstrates the percentage of students who have to wait a certain amount of time in order to utilize the exercise equipment. As we can see, sixteen percent waited five minutes, thirty-seven percent waited ten minutes, and forty-seven percent waited twenty minutes to use the equipment. So if we add more machines, we may lower the waiting time for these students.

6. What equipment do you use the most?



This graph demonstrates which equipment is the most popularly used. By looking at this graph, we can see that gym members like to utilize the treadmills and the elliptical the most; therefore, there likely will be a waiting line for those machines. So we need to add more of the treadmills and the ellipticals to the facility. The benches come in third and follow by the free weights so we only need to add a few more of those.

7. What equipment do you use the least?



This graph demonstrates the three different pieces of equipment that are the least popularly used. By looking at this graph, we can see that twenty students have never used the squat machines, seventeen students never used the calf raises machine, and fourteen students never used the wrist curls machine. As a result, we can either replace these machines with the more popularly used ones or we can remove it completely and make more space for other workout activities.

Interviews

The questions were answered by the Fitness Coordinator at SRWC to give more insight about how the facility is operated.

According to Maureen MacRae, the Student Recreation and Wellness Center have a total budget of 1.2 million dollars to purchase new equipment. But they have not spent it on maintaining and repairing the equipment because everything is still under warranty. However, the money can go toward buying new equipment because they are planning to rearrange the floor plant to compensate the students' workout needs. Many of the new equipment they might be purchasing are the treadmills and the ellipticals. And they are planning on removing the recumbent bikes.

The following interview was conducted to see how 24 Hour Fitness deals with the overcrowding situation. These questions were answered by a Fitness Trainer.

According to Donna Stevenson, 24 Hour Fitness had a 2 million dollar budget to solve their overcrowding situation. Their plan was to remove all the unpopular used equipments such as the arms cycle machines and the stair master machines and replace it with the more popularly used equipment such as the treadmill machines and the elliptical machine. In addition, they rearranged the floor plan by placing similar machines at different areas of the facility because it helps spread the crowds apart. Ever since they implemented their plan, there has not been an issue for a gym member that has tow wait more than five minutes to use the equipment.

Discussion and Analysis of the Data Collected for the SRWC Study

After conducting our research and then analyzing the data, we found our hypothesis to be correct. The Student Recreation and Wellness Center (SRWC) is indeed fairly overcrowded, as depicted in figure 5- 47% of respondents experiences wait times of 20 minutes for some of the most popular exercise equipment. We also gathered from our data the idea that most users of the SRWC leave quite a few machines unused. Twenty students stated they never used the bulky squat machines and 17 responded that they had never used the calf raise machine. Removing these machines would free up floor space for additional popular equipment, thus eliminating or greatly reducing the downtime these users experience while waiting in line for a particular machine. Some of the most popular equipment included: treadmills, elliptical and free weights. The least used equipment included: calf raise machine, curl machine and other machines that target specific body parts. These machines that are used the least are some of the more bulky, space wasting items, and removing them would free up plenty of room for more of the most popular machines. Figure 2 shows that 41% of respondents utilize the SRWC 7 times a week and 31% use it 5 times a week. Increasing accessibility will make these students' workouts take much less time and increase their satisfaction. Participants who claimed they visited a local gym along with the SRWC also complained about long wait times at their local gyms as well. If management at the SRWC were to follow our recommendations, it would have an advantage over local competition and become more popular. Participants like how large and conveniently located the Recreation Center is, but the wait times and over crowdedness caused by equipment crowding make it a much less attractive place to work out. Some people even said that they could not complete their workout because it was simply taking too long to gain access to the equipment they wanted to work out on.

Conclusion and Why Increasing Accessibility to Exercise Equipment is Important

By removing and replacing the unpopular equipment (mostly weight machines) with more of the popular equipment (treadmills, ellipticals and free weights) the SRWC will be able to increase its customer satisfaction by reducing wait times. This will help the SRWC gain an advantage over local competitors and increase popularity at the same time. In order to obtain more information about the Student Recreation and Wellness Center, you can visit their website at <http://www.asirecreation.org/> or contact them directly by phone at 562-985-7427. Most information should be easily accessible by using the aforementioned resources. While our study covered the most prominent reason for long wait times at the SRWC and other local gyms, there could also be other underlying problems that are less common. In order to determine if this is in fact the case a separate, more in depth study, should be conducted by each gym separately to determine where issues are occurring. For follow up interviews or questions it is possible to contact Maureen MacRae directly at her office extension (562) 985-4668. Maureen is the Fitness Coordinator for the SRWC and has knowledge about many details dealing with the operation of the SRWC. If she does not have an answer to a particular question, she will be able to give out the information of a person that would be properly suited to answer the question.

Recommendations

- Replace the least popular gym equipment with the ones that are in more demand (and at which people wait in line) or at least reduce the number of exercise machines that are not used as often with those that are the most popular
 - Replace the rock-climbing wall with more cardiovascular exercise equipment since the rock wall is only free the first time you use it and then after that you have to pay to use it; also the rock-climbing wall is only open during limited hours
- Due to the new trend of living a healthy lifestyle, the Student Recreation and Wellness Center has been a popular place for students to achieve their goal. Consequently, some of the equipment is inaccessible for students without a waiting time. However, these are some suggestions that can reduce or solve the overcrowding situation at the Recreation Center:
 - Rearrange the floor plan
 - Remove some of the least utilized equipment
 - Don't clump the popular equipment together; instead, place it throughout the facility

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