Fitting in Fitness: A Study on the Challenges of Physical Activity for University Students

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General Problem

University students frequently find difficulty in maintaining consistent physical activity due to a range of factors. The demands of academic life - such as attending classes, completing assignments, and participating in non-physical extracurricular activities - make it difficult for many students to prioritize their physical health. However, the issue extends beyond solely scheduling conflicts. Additional barriers include a lack of social motivation, low energy levels, and limited access to exercise resources, which further contribute to the decline in physical activity among students. This report seeks to address the difficulties university students face in sustaining a healthy level of physical activity.

The process of identifying this problem began during a virtual meeting in which team members discussed their own experiences regarding energy levels and well-being. Some members shared that they often found themselves going to the gym at awkward times due to their class schedules. From this discussion, it became clear that many other students face similar challenges. Initially, the group focused on scheduling issues; however, further reflection and feedback from peers revealed that other factors, such as external motivation, mental and physical fatigue, and accessibility to fitness resources also play significant roles in preventing students from leading healthier lifestyles. As a result, the problem statement was broadened to account for these additional challenges.

Problem Statement

University students encounter various obstacles in maintaining consistent physical activity, including time constraints, lack of external motivation, mental and physical fatigue, and limited access to exercise resources. These challenges contribute to an overall decline in physical well-being among this demographic.

Background and Motivation

The problem of insufficient physical activity among university students is critical, and on-going. Numerous studies have shown the correlation between physical activity and academic performance, physical health, and overall well-being. For instance, research indicates a direct relationship between physical activity, physical fitness, and academic success in university students: "Periods of two to three hours of weekly physical activity were positively associated with academic success…" (Lipošek et al., 2018). However, recent studies "indicate only 35% to 37% [of students] report having a regular schedule of [sufficient] physical activity" (Pinto et al., 20). Even though academic performance and physical health benefit from regular exercise, it is clear the majority of students do not experience this. With academic workloads increasing and stress levels rising, students are at a heightened risk of adopting sedentary lifestyles, which can have long-term health consequences.

Despite the availability of various interactive fitness solutions, current options fall short in addressing the unique needs of university students. Many existing fitness apps and gym memberships are designed for general users, and often do not account for the

specific lifestyle of students. Common issues with these solutions include generic workout plans that are not tailored to student schedules or energy levels, overwhelming features with un-intuitive UI/UX, and/or high subscription costs. Additionally, many of these solutions tend to focus on one type of workout, often gym-based, which may not appeal to all students.

Stakeholders

The primary stakeholders with regards to this problem are university students. The demands of academic life, part-time jobs, and social activities can make it difficult for students to prioritize exercise and their physical well-being. Factors such as time management, energy levels, and accessibility to exercise resources can all contribute to the difficulty students face in sustaining an active lifestyle. Personas for this demographic can be found after the description of the various stakeholders.

In researching the issue of physical inactivity among university students, the team initially identified gyms as secondary stakeholders due to their role in providing access to fitness resources. However, collecting data from gyms proved to be challenging, as relevant information on students' exercise habits and participation was difficult to obtain. As a result, the team decided to pivot, designating parents and roommates of university students as secondary stakeholders. Parents and roommates are well-positioned to provide valuable insights into students' daily schedules, habits, and overall well-being, offering a more accessible source of data. Gyms, while still playing an important role in

addressing this issue, were reclassified as tertiary stakeholders due to their indirect influence on students' fitness behavior.

Tertiary stakeholders include gyms and owners of exercise facilities like sports fields, swimming pools, and rock climbing gyms. These spaces provide university students with access to physical activity. Since students often make up a large portion of their clientele, maintaining engagement is crucial for business. To attract students, many facilities offer additional options like fitness classes, personal training, and community events. Understanding student preferences helps these stakeholders better serve their customers and promote higher physical activity rates among the student population.

Personas

Alice

Brief description

Alice is a 21 year old student at UofT. She just started working out, and wants to exercise in a quiet environment that is not too busy.
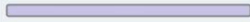
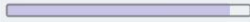She is not used to working out with equipment and feels more pressured when there is a crowd

Goals

- Gradually implement working out into her schedule, along her other commitments

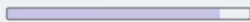- Exercise in a peaceful environment

Personality

Introverted

Careful

Motivated

Motivations

- She wants to prioritize fitness more in her lifestyle

- She feels more comfortable in less crowded environment

Pain Points

- Finds that she never goes to the gym at the right time, it is always too crowded

- Gym time is pushed late due to course schedule, but she has to commute home

Ethan

Brief description

Ethan is a 22 year old student at UofT. He likes to work out, and uses a lot of machines. He often comes to the gym to find that all the machines that he uses are taken.

Ethan hates wasting time, he wants to optimize his workout schedule as efficiently as possible.

Goals

- wants to optimize his workout schedule without wasting time

- make sure he has access to the machines he uses at the gym

- develop a consistent routine

Personality

Enthusiastic
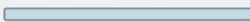
Passionate

Diligent

Motivations

- He wants a way to optimize his workout

- He is passionate about fitness

- He values efficiency in his lifestyle

Pain Points

- He doesn't like when the gym is crowded

- Finds balancing workout with class schedule difficult

- Doesn't like when his workout does not go as planned due to unavailaiblity

Field Studies

Data Collection, Protocols, and Procedures

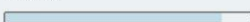To begin data collection, team members decided on utilizing two questionnaires, one for each group of stakeholders. Questionnaires were determined to be the optimal method for gathering a sufficiently large amount of primary data from both stakeholder groups. The second method of data collection used were semi-structured interviews. Interviews provided more qualitative data on external experience, focusing on the thoughts, actions, and feelings of the stakeholders with respect to the problem. Interviews were conducted after questionnaire responses were collected, so that gaps in knowledge and understanding could be filled in with more specific questions and answers.

This information was instrumental in developing professional personas, creating an experience map, and formulating job stories, while the primary data proved valuable in formulating design requirements and shrinking the project scope to focus on the most critical issues and user desires observed.

To design questionnaire prompts, the team formulated incomplete point-of-view statements to simulate an understanding of the stakeholders. The POV statements allowed the team to identify the real-end user segments affected, their essential needs and goals, and insights into their motives and reasonings. The key POV statements that drove question creation were "**Students need to efficiently manage their time exercising because _**" and "**Students need to be able to _ so that they can have a balanced,**

physically healthy lifestyle". Specifically, multiple choice questions and rating questions were utilized to collect all of the quantitative data on Google Forms. Participants who met the criteria were recruited through friends and acquaintances.

Interview questions were created based on responses to the questionnaires, particularly focusing on areas where a lack of clarity or information was prevalent. A semi-structured format was used to ensure objective comparisons could be made between interviewees while allowing for spontaneity in the follow-up questions.

The interviewers began by informing the participant of the ethics involved, asking for their consent to be recorded, and permission to use their data in the study. Afterwards, a few warm-up questions were asked to ensure the participants were the correct targets of the problem. For the primary stakeholder interviews, the team interviewed two students in-person. A grand-tour question was used to get a general overview of a typical weekday and how they attempted to or succeeded in getting exercise done. The remaining questions focused on specific details of both their external and internal experiences, specifically in regards to their schedules and thoughts on their motivation to expand on the corresponding questions from the questionnaire.

Secondary stakeholder interviews were conducted in-person and were mostly concerned with the parents' or roommates' observations of the primary stakeholder. A similar grand tour question was asked about what they observe in their child's/roommates' schedule and their opinions on possible barriers to regular exercise. Unscripted follow-up questions were asked on a case-by-case basis to transition between

scripted questions more seamlessly. All interviews were recorded and transcribed for ease of access and affinity clustering to identify commonalities to design around.

Key Findings

Through comprehensive research that included questionnaires and interviews, several key findings emerged that highlight the challenges university students face in maintaining a consistent exercise routine.

First and foremost, the most prominent constraint identified is the lack of time due to academic commitments, with 11 out of 15 responses in the primary stakeholder questionnaire agreeing or strongly agreeing with this premise. The finding is further substantiated by primary stakeholder interview responses, such as one participant stating "During school, I find it harder to exercise regularly; I only really get walking in." and another noting the difficulty in prioritizing exercise when surrounded by assignments: "It's usually assignments that bother you, not lectures or other schoolwork. Yeah, especially assignments and I have, like, a lot of group projects going on".

Another significant finding is that while 43% of students who exercise utilize the gym, many experience overcrowding during peak hours, particularly in the late afternoon and early evening when classes end. Survey responses and participant quotes, such as "I find that it is most often at full capacity because usually most students go when their classes are over…so a lot of the equipment is being used." reveal that full gyms and lack of access to equipment can deter them from completing - or even starting - their workouts. Thus the importance of developing scheduling tools that account for gym

occupancy, enabling students to plan their workouts more effectively, is made apparent by this finding.

Finally, a lack of motivation emerged as a critical barrier to exercise, influenced by a variety of internal and external factors such as weather, "exam seasons", and overall health. A majority of questionnaire responses indicated that motivation was sometimes an issue, with interview participants noting that "it usually happens during exam times." These participants also noted that the increased stress experienced at these times also leads to a lack of quality sleep, which causes them to have "low energy" which, in turn, pushes them away from working out.

Interestingly, social interaction while exercising was not a significant factor for most questionnaire respondents, as many indicated that they work out alone or that their partner's presence is not important to their exercise. This finding suggests that design requirements should focus on individual motivations and asynchronous social aspects rather than incorporating unnecessary live social components that may not resonate with the majority.

Experience Map

Scheduling Gym Time	Thinking	Planning	Doing	Reflection
Thoughts	I should prioritize my health, but my schedule is already so tight I need to fit gym time into my routine, but I don't know when.	I'll go right after class, but that's when the gym is busiest I could wake up early, but I need sleep to stay focused in class. I could go later at night when most people will have finished their workouts	It's so busy at the gym, I have to wait my turn before I can use machines I should've come earlier/later when there would be less people I don't have any other time since I have class or I'll be too tired	I barely had enough time to do anything meaningful I should try going during a less busy time next time. I could find other ways to stay active, like at-home workouts or taking walks
Actions	Checks their schedule to see potential time slots.	Create a gym workout routine research for gyms in the area to go to consider alternative workout options	Tries to complete a workout but due to crowd was unable to follow workout plan Forced to use alternative machines Decides to leave early	Look to adjust schedule to go to the gym at a less busy time Look for quieter gyms or alternative forms of exercise that would not be as crowded
Emotions	Checks their schedule to see potential time slots and gyms in the area	Feeling nervous about going to gym Stress from choosing to exercise vs working on assignments, homework Relief using exercise as a break from homework/other commitments	Nervous, never been to the gym before Frustration due to machines being occupied Anxiety to finish quicker so others can have their turn	Disappointment of not being able to get a good workout due to overcrowding Discouraged as it feels like it might not be worth it to spend time at the gym

Pain Points	May feel overwhelming to start including gym time into schedule Unsure how to incorporate and use gym time	Scheduling conflicts, trying to fit gym time into an already busy schedule Feeling tired, not wanting to plan exercise too early or late	Nervous, never been to the gym before Frustration due to machines being occupied Anxiety to finish quicker so others can have their turn turn	Trial and error to find out what schedule works best May need to rework workout routine to adjust for less ideal gym times Possible loss of motivation to continue
Bright Spots	Motivation to start improving physical well-being	Optimism for creating new habits	Discover alternative methods of exercise they may not have known of before	A sense of accomplishment for having tried to get a workout

Job Stories

Based on the group's research, several key challenges have emerged that university students face in maintaining a consistent exercise routine. These challenges revolve primarily around time management, motivation, and external factors such as weather conditions and gym congestion. By understanding these obstacles, the team can develop effective solutions that cater to the specific needs of students. The following five job stories illustrate these challenges and the underlying motivations that drive students to seek more effective ways to incorporate physical activity into their daily lives.

When I work out, I need a schedule that can fit around my classes and assignments as a university student so that I can get daily exercise to keep healthy.

This job story addresses the primary issue of time management, the most significant constraint for university students with respect to exercising. With lectures, assignments,

and group meetings often scattered throughout the day, it can be challenging to allocate time for working out. This story highlights the need for flexible scheduling so students can balance their academic responsibilities while maintaining regular physical activity for their overall health and well-being.

When I'm lacking motivation, I want a way to remind myself of my recent exercise progress so that I can push through and stay consistent.

Motivation is a major challenge for students, especially with fluctuating factors such as sleep, workload, or stress. This job story focuses on the psychological aspect of staying motivated by using past achievements to boost present effort. By reminding themselves of their progress, students can overcome temporary dips in motivation and maintain consistency in their workout routines.

When I go to the gym, I want to know how many people are there already, so I save time by not having to check myself.

This story captures the inconvenience students face when gyms are overcrowded, leading to wasted time or frustration. Knowing gym occupancy beforehand allows students to avoid busy times and plan more efficient workouts. This not only saves time but also enhances their gym experience, allowing them to focus on exercise rather than waiting for equipment.

When the weather is bad or it gets dark early, I want indoor workout options that I can do safely at home so that I don't have to worry about going outside.

External conditions such as weather and safety concerns can deter students from outdoor exercise, especially during winter months. This story reflects the need for convenient alternatives that eliminate those external barriers. By having access to indoor workout options, students can maintain their exercise routines without worrying about poor weather or safety after dark.

When I have a busy schedule but need a full 1.5-2 hour block to exercise, I want to plan my day around finding this continuous time slot so that I can have a complete, uninterrupted workout session.

Some students that highly prioritize physical activity prefer longer, uninterrupted workout sessions, and splitting up exercise is not an effective option for them. This job story addresses the need for these students to plan their day carefully to accommodate a full workout block. By finding and reserving this time, they can ensure a more productive and satisfying workout that fits their personal preferences and goals.

Design Requirements

The design requirements outlined below are essential for developing a solution that effectively addresses the challenges faced by university students in maintaining a consistent exercise routine. Each requirement was selected to enhance user experience, motivation, and convenience. By focusing on features that consider individual schedules and preferences, track progress, and facilitate social connections, the group aims to provide a comprehensive solution to ensuring students maintain consistent physical

activity in their busy lives. The following requirements will serve as a foundation for creating a user-friendly platform that meets the unique needs of this demographic:

1. **The solution will account for various factors affecting a student's daily schedule, providing optimal time slots for exercise.**
   - Almost all surveyed students answered that their time commitments restricted their ability to exercise sufficiently. These time commitments involve their need to complete school work and other personal tasks.

2. **The solution will recommend workouts based on individual student preferences and constraints, such as activity type (e.g., walking, weightlifting, sports, etc.)**
   - The results from the questionnaire indicated many students completed a variety of exercise types, such as outdoor cardio, low intensity, flexibility, sports, gym workouts, etc. To cater to the different kinds of athletes, integrated workout suggestions will provide convenience often unavailable through current solutions and encourage maintaining consistent exercise practices.

3. **The solution will monitor gym occupancy to help users schedule their workouts effectively**
   - A notable amount of students indicated they exercise at the gym. To increase desired equipment availability, students should know how many people are already at the gym. A student mentioned in their interview that they have to change their workout routine and are unable to accomplish some exercises during more congested times. Some students may also

prefer to workout in a quieter atmosphere or may be more self-conscious around others.

4. **Users will be able to track exercise progress and/or integrate data from other fitness services to provide comparisons and progress graphs over time.**

    ○ A majority of questionnaire respondents agreed they struggled to exercise regularly due to a lack of motivation. By providing a visual of their progress, it may drive students to maintain their progress and continue to exercise. Tracking their progress can also inform them of the next potential goals they want to achieve in their exercise.

5. **Users will have the option to add friends and compare progress to enhance motivation.**

    ○ A subset of the respondents cited a lack of social interaction was a factor in their lack of motivation. Others indicated their social circles wanted to do other activities instead of going to the gym, such as playing video games. Adding features to compare progress and schedule time together may encourage more participation within friend groups and create an environment where the users feel supported.

Appendices

Field Studies Protocols

RESEARCH PROTOCOL

1. **Project Title**: e.g., "Interviews and Observations of active University students".

2. **Investigators**: Joshua Jang (hyunjo.jang@mail.utoronto.ca), Aaron Liu (aaronxiaozhou.liu@mail.utoronto.ca), Neil Mehta (neil.mehta@mail.utoronto.ca), Sophia Naveed (sophia.naveed@mail.utoronto.ca), Ryan Oakley (ryan.oakley@mail.utoronto.ca), Olivia Zhou (oliviajq.zhou@mail.utoronto.ca)

3. **Purpose**: The purpose of our research is to understand the difficulties university students face in sustaining a healthy level of physical activity, which helps us derive requirements for the design of novel interactive computational media that are intended to be useful to University students. A brief description of our design problem is: **University students encounter various obstacles in maintaining consistent physical activity, including time constraints, lack of external motivation, mental and physical fatigue, and limited access to exercise resources. These challenges contribute to an overall decline in physical well-being among this demographic.**

4. **Process to be followed**: We will brief the participants about the purpose of the study, explain the consent form to them, and ensure that they sign the consent form. We will then engage the participants in a semi-structured interview.

5. **Participant selection:** Participants will be chosen from a set of University students. They will be identified via online recruitment and selected according to a wide range of personalities, hobbies, daily schedules. In general, they will be characterized by age, gender, geographic location, school enrolment information, etc..

6. **Relationships**: Our relationship to the participants may be described as follows: classmates, friends, peers, colleagues, and family.

7. **Risk and benefit:** There will be minimal risk to the participants. The benefit will be to contribute to the education of the investigators and development of a solution to the stated design problem. Participants are free to withdraw at any time during the study without any explanation.

8. **Consent details**: We will brief the participants about the purpose of the study, and explain the **attached consent form** to them, and ensure that they consent to participate and sign the consent form.

9. **Compensation**: Participants will receive no compensation.

10. **Information sought:** The information to be sought is described in the attached questionnaire.

11. **Confidentiality**: Information will be kept confidential by the investigators. Names or other identifying information will not be kept nor used with the data. The only other use will be to include excerpts or copies in the assignment submitted, but names and other identifying or identified information will not be submitted.

RESEARCH PROTOCOL

1. **Project Title**: e.g., "Interviews and Observations of Physically Active University students".

2. **Investigators**: Sophia Naveed (sophia.naveed@mail.utoronto.ca), Joshua Jang (hyunjo.jang@mail.utoronto.ca), Aaron Liu (aaronxiaozhou.liu@mail.utoronto.ca)

3. **Purpose**: The purpose of our research is to understand the difficulties university students face in sustaining a healthy level of physical activity, which helps us derive requirements for the design of novel interactive computational media that are intended to be useful to University students. A brief description of our design problem is: **University students encounter various obstacles in maintaining consistent physical activity, including time constraints, lack of external motivation, mental and physical fatigue, and limited access to exercise resources. These challenges contribute to an overall decline in physical well-being among this demographic.**

4. **Process to be followed**: We will brief the participants about the purpose of the study, explain the consent form to them, and ensure that they sign the consent form. We will then engage the participants in a written questionnaire. We will also, with their permission, make observations as follows:

5. **Participant selection:** Participants will be chosen from a set of University students. They will be identified via online recruitment and selected according to a wide range of personalities, hobbies, daily schedules. In general, they will be characterized by age, gender, geographic location, etc..

6. **Relationships**: Our relationship to the participants may be described as follows: classmates, friends, peers, colleagues, and family.

7. **Risk and benefit:** There will be minimal risk to the participants. The benefit will be to contribute to the education of the investigators and development of a solution to the stated design problem. Participants are free to withdraw at any time during the study without any explanation

8. **Consent details**: We will brief the participants about the purpose of the study, and explain the **attached consent form** to them, and ensure that they consent to participate and sign the consent form.

9. **Compensation**: Participants will receive no compensation.

10. **Information sought:** The information to be sought is described in the interview protocol.

11. **Confidentiality**: Information will be kept confidential by the investigators. Names or other identifying or identified information will not be kept with the data. The only other use will be to include excerpts or copies in the assignment submitted, but names and other identifying or identified information will not be submitted.

Consent Forms

Consent Form: Interviews and Observations of active University students

I hereby consent to participate in a research study conducted by Joshua Jang, Aaron Liu, and Sophia Naveed for an assignment in University of Toronto Computer Science 318, *Design of Interactive Computational Media*.

I agree to participate in this study, the purpose of which is to understand the difficulties university students face in sustaining a healthy level of physical activity on a day-to-day basis.

I understand that
- The procedures to be used are an interview with one investigator on the research team.
- The interview is expected to take less than 10 minutes.
- I will receive no compensation for my participation.
- I am free to withdraw before or any time during the study without the need to give any explanation.
- All materials and results will be kept confidential, and, in particular, that my name and any identifying or identified information will not be associated with the data.

PARTICIPANT

Name (please print) _____

Signature _____

Date _____

INVESTIGATOR(s)

Name_____Signature_____

Name_____Signature_____

Consent Form: Interviews and Observations of active University students

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I agree to participate in this study, the purpose of which is to understand the difficulties university students face in sustaining a healthy level of physical activity on a day-to-day basis.

I understand that
- The procedures to be used are an online questionnaire consisting of multiple-choice questions about daily physical activity habits, challenges, and routines.
- The questionnaire is expected to take approximately 10–15 minutes to complete.
- I will receive no compensation for my participation.
- I am free to withdraw at any time during the study without the need to give any explanation.
- All materials and results will be kept confidential, and, in particular, that my name and any identifying or identified information will not be associated with the data.

PARTICIPANT

Name (please print) _____

Signature _____
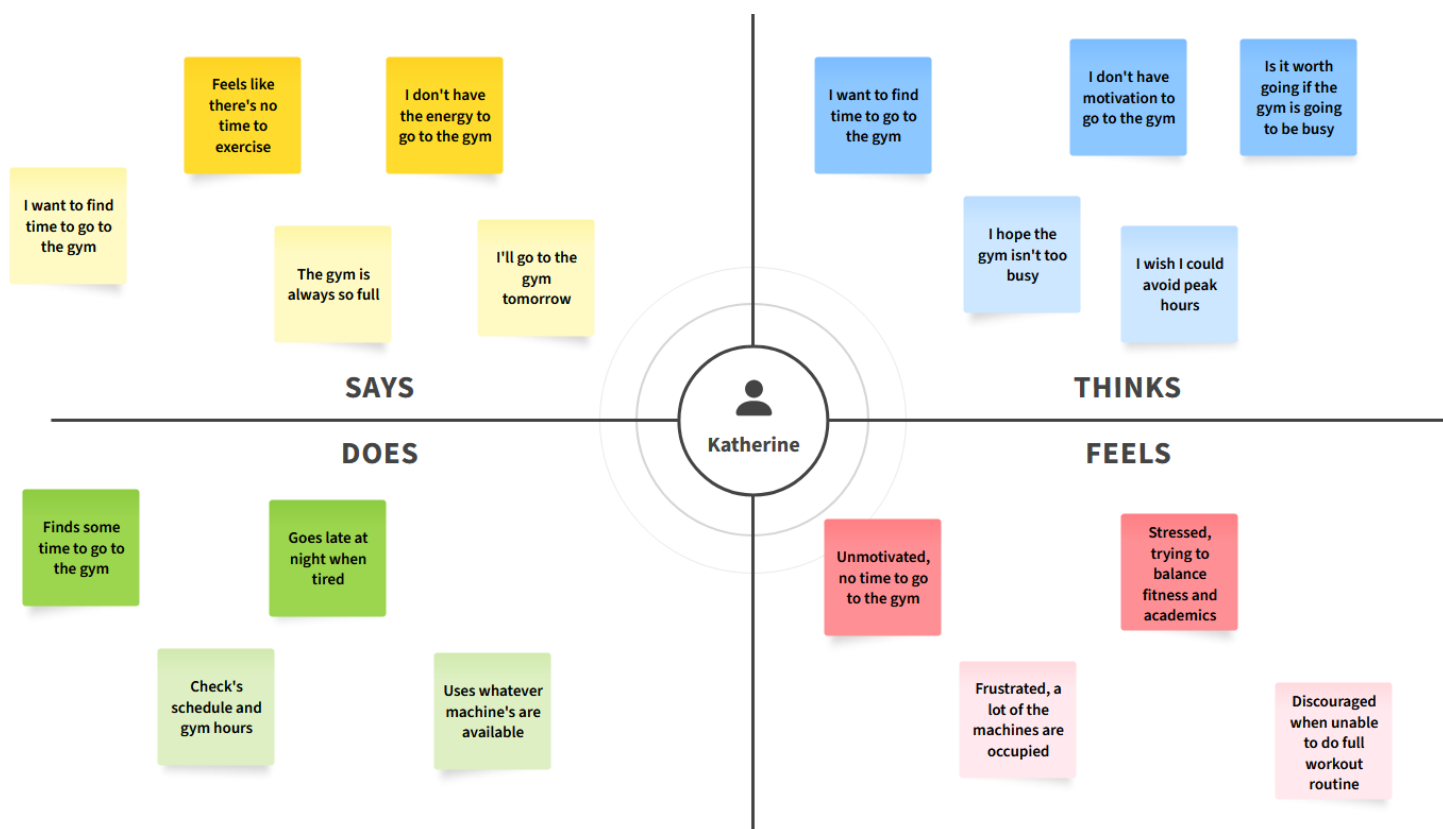
Date _____

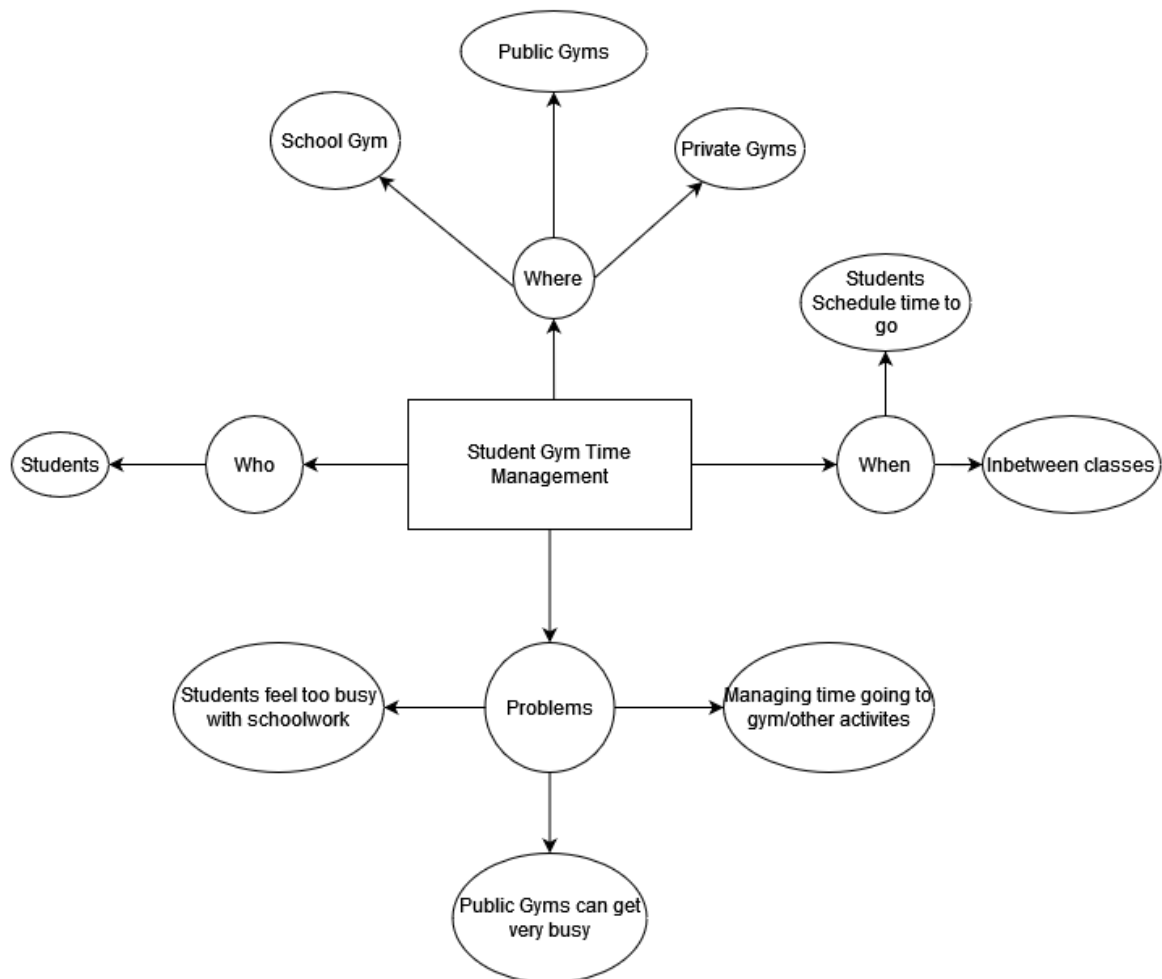**INVESTIGATOR(s)**

Name_____Signature_____

Documentation

POV Statements

- Students need to be able to _____ so that they can have a balanced, physically healthy lifestyle.

- Students need to efficiently manage their time exercising because _____.

- Students need affordable fitness options because they want to stay healthy while saving on spending.

- Students need to be able to _____ so they know the best time to go to the gym.

- Students need to be able to know how busy a gym because _____.

- Students need to be able to _____ because access to the gym varies by season.

- Students need to be able to _____ because they might want to work out with a friend.

- Parents need to be able to _____ because they are concerned about their child's physical health.

- Gyms need to be able to _____ to maximize the number of students using their equipment during off-peak hours.

- Gyms need to be able to _____ to manage peak hours and increase turnover rates.

Empathy Map

SAYS

I want to find time to go to the gym

Feels like there's no time to exercise

I don't have the energy to go to the gym

The gym is always so full

I'll go to the gym tomorrow

THINKS

I want to find time to go to the gym

I don't have motivation to go to the gym

Is it worth going if the gym is going to be busy

I hope the gym isn't too busy

I wish I could avoid peak hours

Katherine

DOES

Finds some time to go to the gym

Goes late at night when tired

Check's schedule and gym hours

Uses whatever machine's are available

FEELS

Unmotivated, no time to go to the gym

Stressed, trying to balance fitness and academics

Frustrated, a lot of the machines are occupied

Discouraged when unable to do full workout routine

Mind Map

Research Instruments

Questionnaire

Interviews and Observations of Active University Students

Investigators: Joshua Jang (hyunjo.jang@mail.utoronto.ca), Aaron Liu (aaronxiaozhou.liu@mail.utoronto.ca), Neil Mehta (neil.mehta@mail.utoronto.ca), Sophia Naveed (sophia.naveed@mail.utoronto.ca), Ryan Oakley (ryan.oakley@mail.utoronto.ca), Olivia Zhou (oliviajq.zhou@mail.utoronto.ca)

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Confidentiality: Information will be kept confidential by the investigators. Names or other identifying information will not be kept nor used with the data. The only other use will be to include excerpts or copies in the assignment submitted, but names and other identifying or identified information will not be submitted.

oliviazjq@gmail.com Switch account

Not shared

* Indicates required question

I have read and understood the information provided about this study. *

◯ Yes

Next   Page 1 of 5   Clear form

Consent Form

I hereby consent to participate in a research study conducted by Joshua Jang, Aaron Liu, Neil Mehta, Sophia Naveed, Ryan Oakley, and Olivia Zhou for an assignment in University of Toronto Computer Science 318, *Design of Interactive Computational Media*.

I agree to participate in this study, the purpose of which is to understand the difficulties university students face in sustaining a healthy level of physical activity on a day-to-day basis.

I understand that

- The procedures to be used are an online questionnaire consisting of multiple-choice questions about daily physical activity habits, challenges, and routines.
- The questionnaire is expected to take approximately 10–15 minutes to complete.
- I will receive no compensation for my participation.
- I am free to withdraw at any time during the study without the need to give any explanation.
- All materials and results will be kept confidential, and, in particular, that my name and any identifying or identified information will not be associated with the data.

I am granting my consent to continue. I understand the purpose of what I am consenting for, and everything that it entails. *

○ Yes

○ No

Back   Next   Page 2 of 5   Clear form

Demographics

How old are you?

Your answer

What is your gender?

○ Woman

○ Man

○ Prefer not to say

○ Other: _____

Were you enrolled in university for the past year?

○ Yes

○ No

Back   Next   Page 3 of 5   Clear form

What kind of exercise have you been doing **most frequently** during the past academic year? *

○ Outdoors Cardio (e.g. running, cycling, hiking)

○ Gym Workouts (e.g. weightlifting, indoors cardio)

○ Flexibility/Mobility (e.g. yoga, stretching)

○ Team Sports (e.g. basketball, football)

○ Low-Intensity (e.g. walking)

○ Other: _____

In terms of your daily tasks such as eating, studying, socialising, etc., what priority * is given to exercising?

	1	2	3	4	5	
Low Priority (will not exercise if busy)	○	○	○	○	○	Very important (will exercise no matter what)

Do you use a dedicated location for your exercise above? If yes, where? *

○ Gym

○ Sports field/track/arena

○ Swimming Pool

○ I do not have a dedicated location for my exercise

○ Other: _____

How long does it usually take to get to your exercise location? *

○ I do not have a dedicated location for my exercise

○ Less than 10 minutes

○ 10 to 30 minutes

○ 30 to 60 minutes

○ Longer than 1 Hour

Do you exercise alone or with others? If with others, how important is the presence of the other person? *

○ I exercise alone

○ I work with others, and their presence is not important.

○ I work with others, and their presence is somewhat important.

○ I work with others, and their presence is important.

How long do you **want** to work out per week? *

○ Less than an hour total

○ 1 Hour to 2 Hours

○ 2 Hours to 4 Hours

○ 4 Hours to 7 Hours

○ 7 Hours or more

How long do you **actually** work out per week? *

○ Less than an hour total

○ 1 Hour to 2 Hours

○ 2 Hours to 4 Hours

○ 4 Hours to 7 Hours

○ 7 Hours or more

Please answer this section if your **actual** number of workout hours is **LESS THAN** your **desired** number of workout hours:

I struggle to exercise sufficiently due to time constraints (school, work, other commitments, etc)

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I struggle to exercise due to logistical constraints (e.g. long distance, transportation options, etc)

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I struggle to exercise due to motivation (e.g. mental, lack of physical energy, etc.)

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I struggle to exercise due to lack of social interaction (e.g. nobody to go with)

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

If there are any other reasons for why you struggle to maintain consistent physical activity, please write them down here:

Your answer

Back   Submit   Page 5 of 5   Clear form

Raw Data

Interview Script for Primary Stakeholders

Date:

Interviewee Name:

Warm-Up

Are you a university student? If so, how much time do you spend at school?

Do you exercise regularly? If so, how much time do you aim to spend exercising? Do you satisfy your expectations?

Is exercising a "high priority" for you? As in, when having to choose between your daily tasks, do you make a conscious effort to get exercise done over others?

Main Body

[Grand Tour]: Please go through and describe your average weekday while identifying when you usually plan to exercise, and when you actually do/don't.

[If the interviewee couldn't get exercise done]

[Ask any question that gives us insight into every single reason why exercises can't be done]

You were doing task X before planning to exercise. Was task X of a higher priority?

Is there a reason why the exercise could not be rescheduled?

[If the interviewee can get exercise done]

[Ask for strategies which allow them to exercise on time even with school work]

Do you face any challenges when scheduling your exercise sessions? If so, what are your strategies for overcoming them? What efforts have you made in the past to do so?

Many students from our questionnaire responded that motivation, or the lack thereof, was a significant factor in not getting exercise done. Has this happened to you before?

[If yes]

When does this most frequently occur? Please describe in terms of your average day schedule from before.

What efforts have you tried to overcome this issue?

If the #1 cause of the motivation issue was suddenly resolved, do you think motivation will return? What will that cause be?

What is the major motivation issue you face?

[If they use a gym] how often is the gym "full" or at capacity when you go to work out? Does the business of the gym ever impact your desire or decision to exercise at a given time?

[If no]

What do you think is the largest contributor for not letting your motivation dip down? Do you make conscious efforts?

If you could improve 1 thing regarding planning and going to exercise, what will it be?

Reflection

[Clarify ambiguous answers]

[Additional Questions go here]

Interview Script for Secondary Stakeholders

Date:

Interviewee Name:

Warm-Up

Are you a parent or roommate of a university student? If so, how many of your children/roommates are university students or have been through university?

How often do you talk to your child/children/roommate(s)?

Do you talk to your children/roommate(s) about getting exercise or their physical health?

Main Body

[Grand Tour]: Please go through and describe what you know about your child's/roommate's exercise routine or schedule.

[If the person of interest couldn't get exercise done]

[Ask any question that gives us insight into how exercise fits into their current and past priorities]

What are their main priorities throughout the week?

What do they complain the most about regarding their general schedule?

In the past, have they stayed active? For example, in high school or earlier years of their uni studies?

If yes, how have their exercise habits changed? Have any factors influenced this change?

[If the interviewee can get exercise done]

[Ask for strategies which allow them to exercise on time even with school work]

When do they exercise?

What do they typically do before and after they exercise? (E.g. Go to class, go home, go study) Can you give an estimate of how much time that takes them?

Many students from our questionnaire responded that motivation, or the lack thereof, was a significant factor in not getting exercise done. Do you notice this in your child/roommate?

[If yes]

When does this occur?

What do you think is the main cause of their lack of motivation?

Do they struggle with an inconsistent exercise schedule?

[If no]

What do you think is the largest contributor to their motivation?

If you could improve 1 thing regarding their planning and going to exercise, what will it be?

Reflection

[Clarify ambiguous answers]

[Additional Questions go here]

User Studies Data

Questionnaire Results

I have read and understood the information provided about this study.
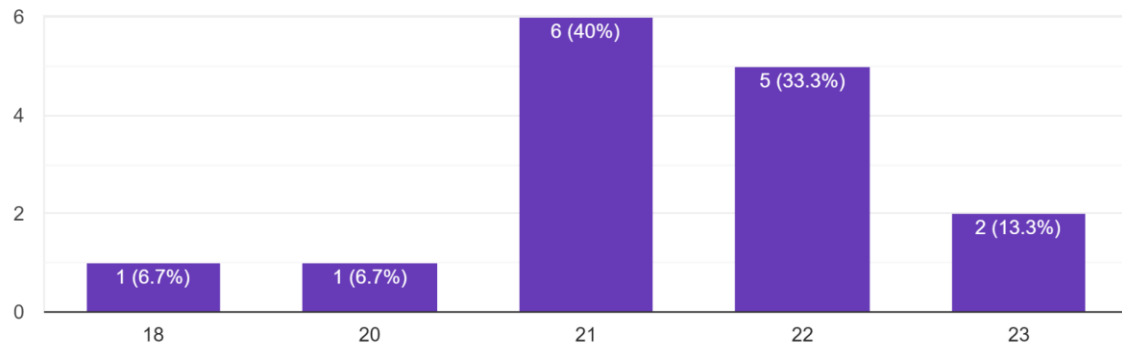13 responses
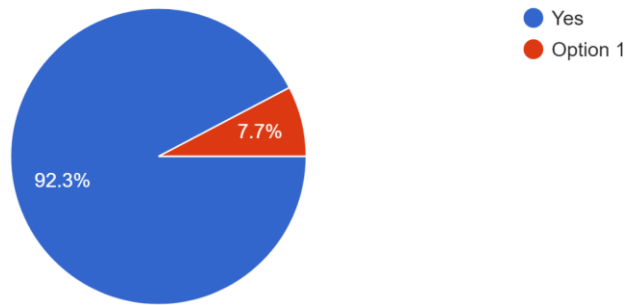
Yes
Option 1

92.3%

7.7%

I am granting my consent to continue. I understand the purpose of what I am consenting for, and everything that it entails.
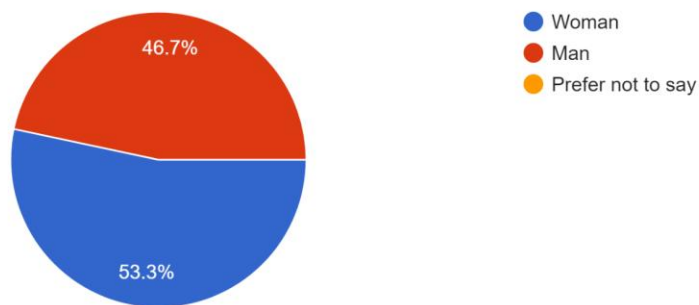12 responses
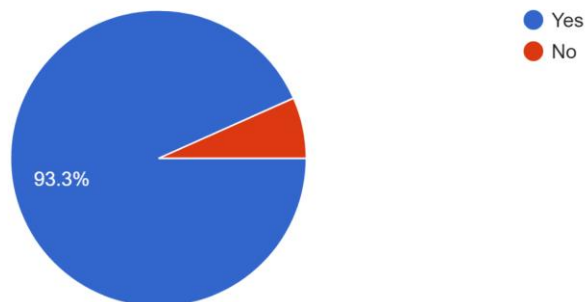

Yes
No

100%
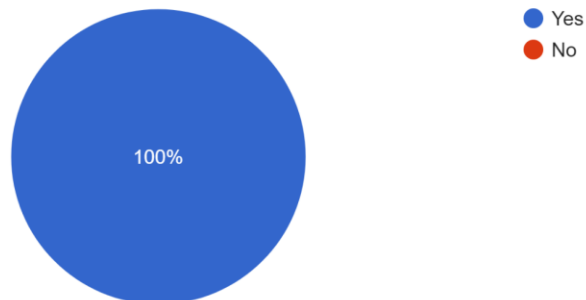
How old are you?

15 responses

What is your gender?

15 responses
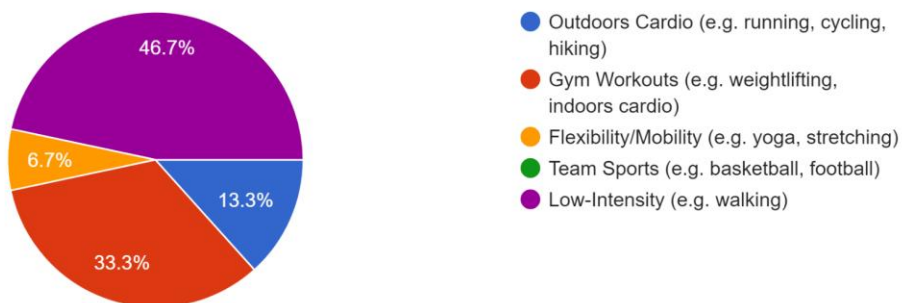

- Woman
- Man
- Prefer not to say

Were you enrolled in university for the past year?

15 responses

- Yes
- No

What kind of exercise have you been doing most frequently during the past academic year?

15 responses

- Outdoors Cardio (e.g. running, cycling, hiking)
- Gym Workouts (e.g. weightlifting, indoors cardio)
- Flexibility/Mobility (e.g. yoga, stretching)
- Team Sports (e.g. basketball, football)
- Low-Intensity (e.g. walking)

In terms of your daily tasks such as eating, studying, socialising, etc., what priority is given to exercising?

15 responses
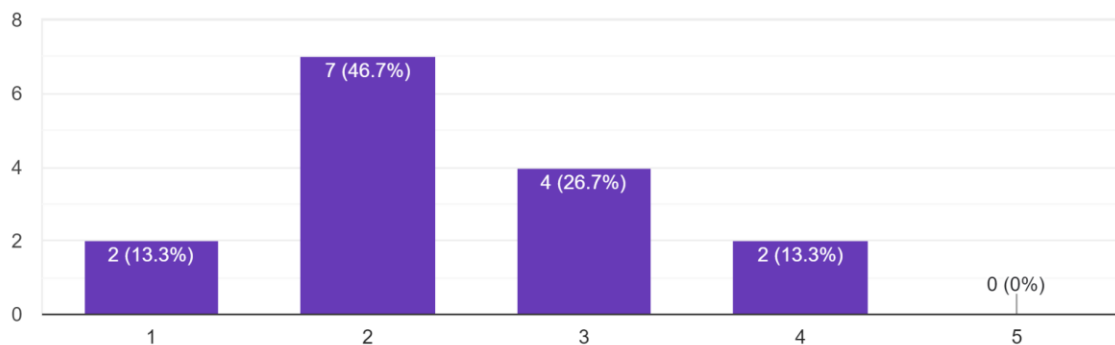
Do you use a dedicated location for your exercise above? If yes, where?
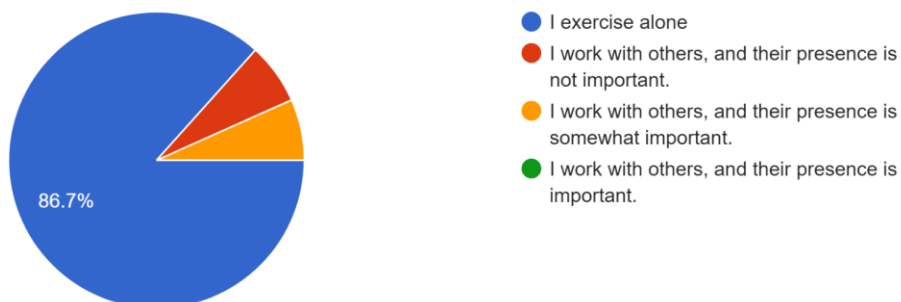
15 responses

- Gym
- Sports field/track/arena
- Swimming Pool
- I do not have a dedicated location for my exercise

How long does it usually take to get to your exercise location?
15 responses

- I do not have a dedicated location for my exercise
- Less than 10 minutes
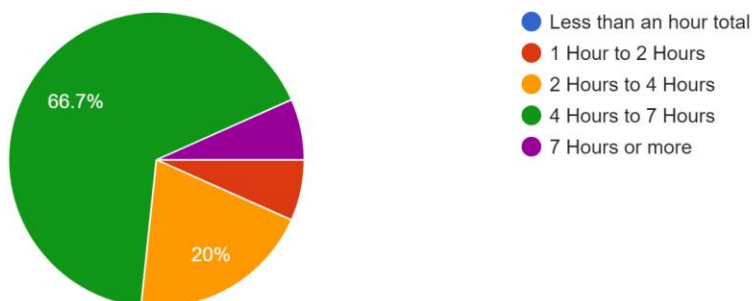- 10 to 30 minutes
- 30 to 60 minutes
- Longer than 1 Hour

Do you exercise alone or with others? If with others, how important is the presence of the other person?
15 responses

- I exercise alone
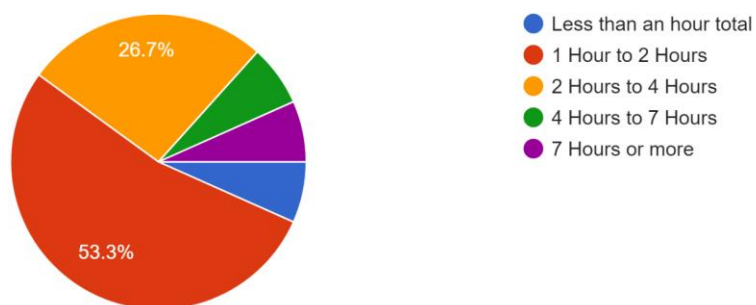- I work with others, and their presence is not important.
- I work with others, and their presence is somewhat important.
- I work with others, and their presence is important.

How long do you want to work out per week?
15 responses

- Less than an hour total
- 1 Hour to 2 Hours
- 2 Hours to 4 Hours
- 4 Hours to 7 Hours
- 7 Hours or more

How long do you actually work out per week?

15 responses

- 🔵 Less than an hour total
- 🔴 1 Hour to 2 Hours
- 🟠 2 Hours to 4 Hours
- 🟢 4 Hours to 7 Hours
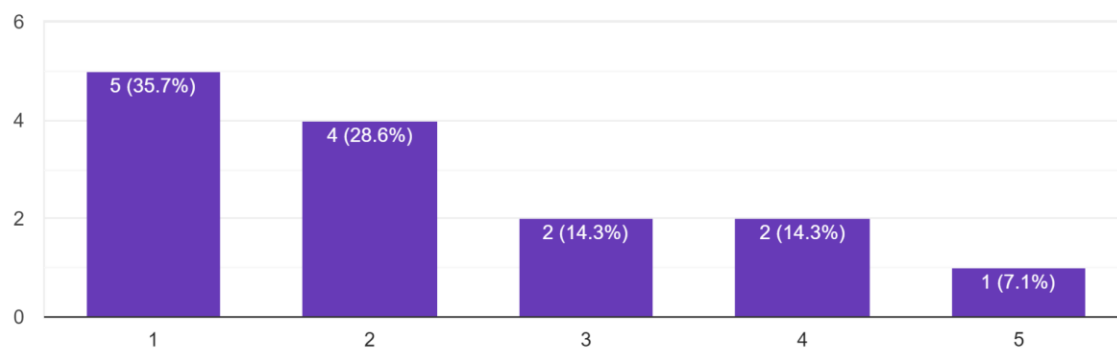- 🟣 7 Hours or more

26.7%

53.3%

I struggle to exercise sufficiently due to time constraints (school, work, other commitments, etc)
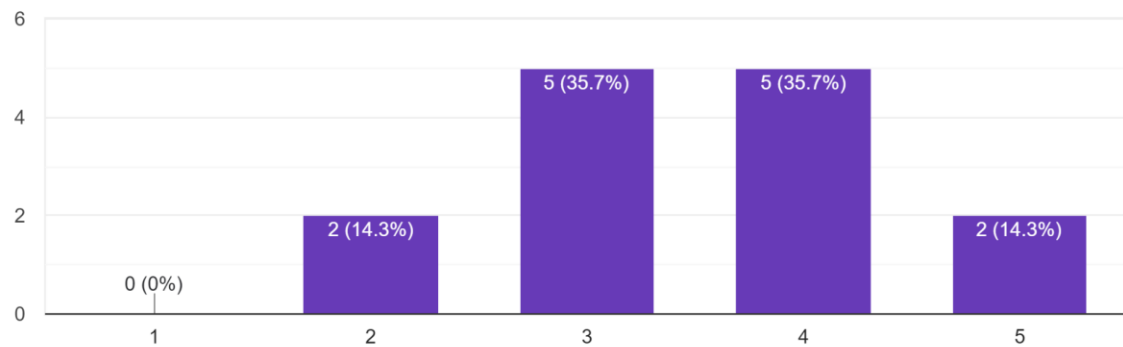
14 responses
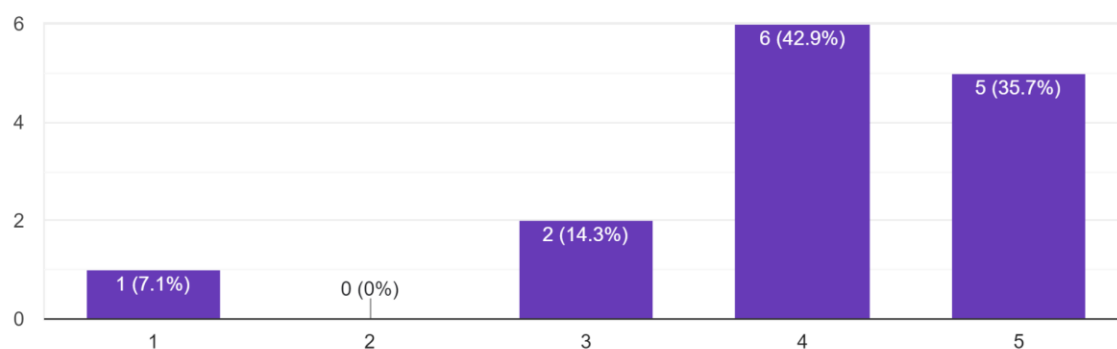
I struggle to exercise due to logistical constraints (e.g. long distance, transportation options, etc)
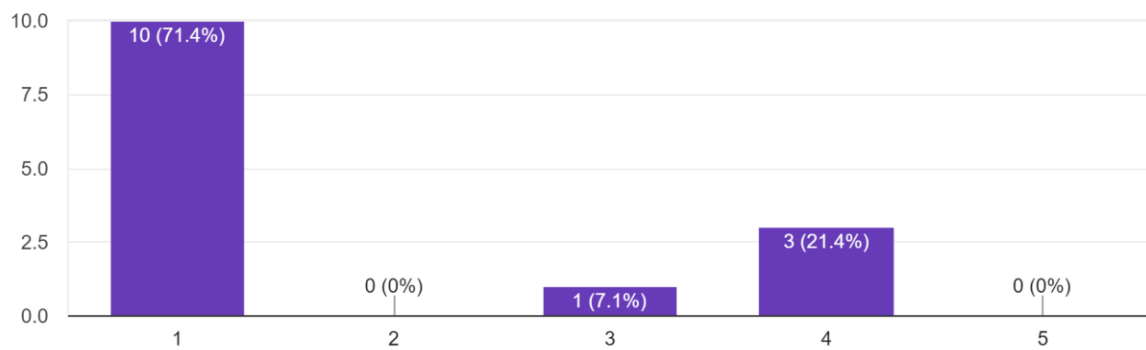
14 responses

I struggle to exercise due to motivation (e.g. mental, lack of physical energy, etc.)

14 responses

I struggle to exercise due to lack of social interaction (e.g. nobody to go with)

14 responses

If there are any other reasons for why you struggle to maintain consistent physical activity, please write them down here:

7 responses

> As a commuter it is impractical carrying school material and gym necessities to and from school

> Sometimes during the winter it gets dark really quick - so I don't want to go outside bec it's scaryyyy 😒

> Sometimes when I'm about to go to the gym, my friends ask me to play valorant.

> I like playing videogames with my friends instead

> if my headphones die I don't want to go since I am without my music

> I need to have a dedicated 1 hour to 1.5 hour continuous workout session, but it is hard to find the time without splitting it up, which is not effective

> My homies been pushing me to play stardew a lot recently and I can't say no to the homies (They know where i live)

Interview Transcripts

Interview transcripts can be found in the folder here:

https://drive.google.com/drive/folders/1jW5qB__0pUBz8la8LVcTvaPw0ZfssdEH?usp=sharing

Group Meeting Notes

Joshua Jang — 09/21/2024 5:46 PM

21 SEP TODO

[make sure to take notes on what's going on today]

[Check how the timeline/workflow works: is it choose topic -> formative study -> prototype -> feedback -> report? Anything missing?]

- Pick project topic
- Pick formative study methods + details

- Discuss who wants to do what and write A1 project timeline
- Write A0 team charter - this is mostly fluff, a fast writer (chatgpt? lol) can do this
- Get all content that must go into SP1 on a shared doc (actual presentation slides can be made later - MON/TUE)

Overall TODO

- Topic brainstorming [everyone]
- Charter + Timeline writeup [1-2 people]
- Formative study plan [everyone]
- Studio Presentation Prep [Everyone]
- Studio Presentation [2-3 people]
- Formative study [3+ people]
- Brainstorming solution ideas [Everyone]
- Prototyping solution ideas [2-3 people]
- Getting feedback on prototype [2-3 people]
- Report writeup [everyone]

hey guys, in order to make our call efficient, I have come up with a rough list of things to do today - feel free to discuss changes

Neil — 09/22/2024 1:16 PM

Update: so far we've created a template for the presentation including title slides, table of contents, section headers, etc. All thats left to do is add the relevant information after the formative studies have been conducted and any final images/animations/etc

Joshua Jang — 10/1/2024 at 5:44 PM

The things we need to discuss are:

- Analyse primary stakeholder questionnaire responses
- Discuss how to get responses for the secondary questionnaires because it's harder than primary
- Decide who is gonna conduct an interview with whom
- Discuss details of interview (questions, recording, consent forms

Contribution Table

Name	Contributions	Issues
Joshua	- Participant recruitment - Primary stakeholder questionnaire creation - Interviewer	None
Aaron	- Studio presentation creation - Studio presentation participant - Participant recruitment - Interviewer - Experience/Empathy map creation	None
Neil	- Studio presentation creation - Studio presentation participant - Report writer/editor - Participant recruitment	None
Sophia	- Studio presentation creation - Studio presentation participant - Interviewer - Persona creation - Protocol and consent - Participant recruitment	None
Ryan	- Formative study plan - Secondary Stakeholder questionnaire - Participant recruitment	A sad case of pneumonia
Olivia	- Report writer - Participant recruitment	None

References

Lipošek, S., Planinšec, J., Leskošek, B., & Pajtler, A. (2018). Physical activity of university students and its relation to physical fitness and academic success. Annales Kinesiologiae, 9(2).

Townsend, Z., Torrence, W., Smith, D., & Werner, T. (2024). Physical Activity and Exercise Motivation Differences Among College Students. International Journal of Kinesiology in Higher Education, 1–14. https://doi.org/10.1080/24711616.2024.2381442