

## Assessing the Feasibility of Active Study Stations at UBC Okanagan

Casey Hamilton, Campus Health Specialist  
Angie Foster, 4<sup>th</sup> year nursing student  
Kyle Potter, 4<sup>th</sup> year psychology student



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## VOICE Research

- ▶ For more than 10 years, the VOICE team has been conducting research on our campus.
- ▶ We use a "Community-Based Participatory Action" research approach, which ensures collaboration between all members on campus including students, staff, and faculty.



## Background

- ▶ VOICE Campus Health Project embarked on a pilot project to evaluate the use of active study stations at the UBCO library
- ▶ Why did we decide to focus on active study stations?
  - ▶ Previous **VOICE** results indicated that physical activity was the 3<sup>rd</sup> overall healthy campus priority for respondents
  - ▶ The results of the **Physical Activity Community Dialogue Survey** indicated that students desire more affordable options and more variety of options for physical activity on campus
  - ▶ Recent estimates indicate that UG students spend an average of 11.88 hrs/day engaged in sedentary behaviours  
(Moulin & Irwin, 2017)

## Background

- ▶ Physical activity vs. sedentary behaviour
- ▶ Physical and mental health benefits
- ▶ Effects on productivity
- ▶ Research specific to active study stations in university settings



## UBC Wellbeing

- ▶ UBC Wellbeing has prioritized increasing physical activity and reducing sedentary behaviour



## The First Step

- ▶ In partnership with the UBC Okanagan Library, a treadmill desk (2016) and bicycle desk (2017) were placed in the library to provide options for students to reduce sedentary behaviour.
- ▶ Considerations in selecting active study stations:
  - ▶ Noise
  - ▶ Durability
  - ▶ Ease of maintenance
  - ▶ Safety
  - ▶ Practicality



## Objectives

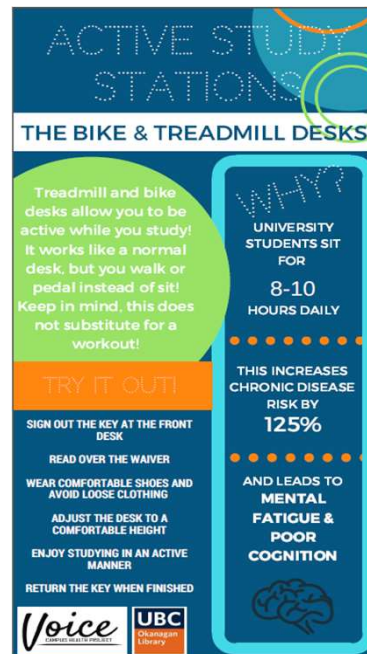
- ▶ Describe users of the active study stations
- ▶ Describe how often the active study stations are used
- ▶ Describe the feasibility and acceptability of active study stations
- ▶ Describe attitudes toward active study stations on campus
- ▶ Make recommendations on expanded use of active study stations on campus and their evaluation

## First Phase of Research

- ▶ Study began May 2016 and completed February 2018
- ▶ We used an online survey tool that included topics such as:
  - ▶ Previous use of an active study station
  - ▶ Motivation for trying the active study stations
  - ▶ Ability to focus on school work while using the active study station
  - ▶ Intention to use active study stations if they were more available on campus
  - ▶ Recommendations for active study stations on campus

## Recruitment

- ▶ Posters
- ▶ Commercial
- ▶ Promotional Tables
- ▶ Social media ads
- ▶ Brochure



## Eligibility to Participate

- ▶ Valid UBC Library Card
  - ▶ Student
  - ▶ Staff
  - ▶ Faculty
  - ▶ Community Member
  - ▶ Alumni



## Method

- ▶ Eligible participants signed out a key and were invited to sign a form indicating that they consented to receiving the survey
- ▶ Survey link was sent via email 30 days after the participant gave consent
  - ▶ *Once the bike desk was added, this step was modified. The decision was made to put the link to the survey on the desks themselves, eliminating the need to send out the link to survey participants.*
- ▶ Data were analyzed using descriptive statistics

# RESULTS

## Usage Statistics

- ▶ The keys for the active study stations were signed out 752 times by 130 unique users ( $X=5.78/\text{user}$ )
- ▶ Mean duration of use:
  - ▶ treadmill desk= 40.53 minutes
  - ▶ bike desk = 23.3 minutes
- ▶ After introducing the bike desk, usage between both active study stations was roughly 50/50

\*Maximum session time per desk was kept to 120 minutes to allow for other users

## Survey Participants

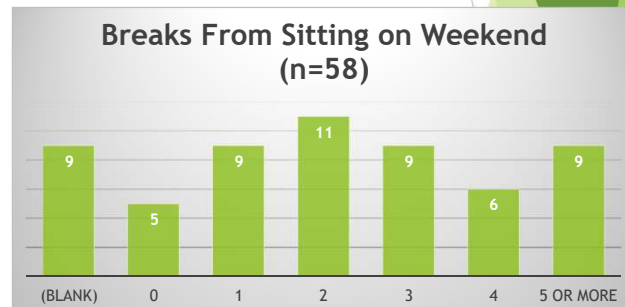
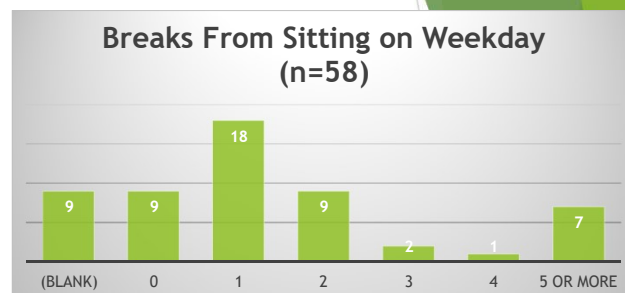
- ▶ Number of survey participants  $N=58$  (response rate = 47%)
- ▶ Average age: 23 years ( $SD=5.96$ ), range=18-51 years
- ▶ Majority of participants were female (76%)
- ▶ Largest groups of students were from:
  - ▶ Human Kinetics ( $n=20$ )
  - ▶ Arts ( $n=16$ )

## Sedentary Behaviour of Survey Participants

- ▶ Spend an average of 41 hours/week in sedentary activity associated with school work (not including other sedentary activities such as driving or watching Netflix)
- ▶ On any given weekday students reported spending an average of 12 hours in sedentary activity.

## Sedentary Behaviour

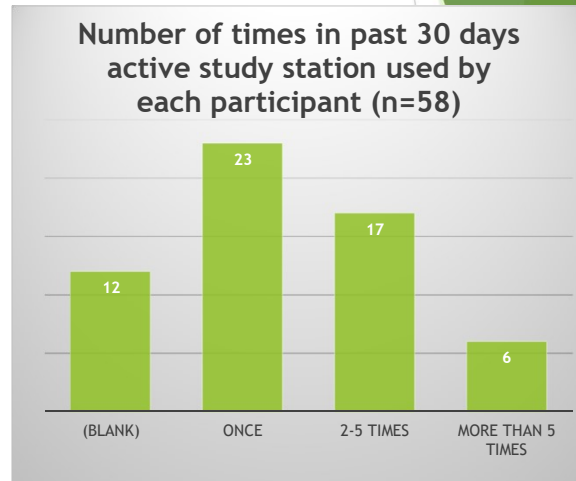
- ▶ Students reported fewer breaks from sitting during the weekday versus during the weekend
- ▶ Findings suggest campus environment provides few options or time to take standing/movement breaks





## Patterns of use

- ▶ Only 5 out of the 58 participants had used an active study station in the past (9%)
- ▶ 23 of survey participants used the active study stations more than once.



## Motivations for Use

- ▶ The majority of participants (51%) indicated that they used an active study station for a change after sitting for so long
- ▶ Other motivating factors included:
  - ▶ Health reasons
  - ▶ Increase physical activity
  - ▶ Curiosity

## Personal Experience - Related to Work (n=56\*)

Statement	Strongly Agree (n)	Agree (n)	Neutral (n)	Disagree (n)	Strongly Disagree (n)
Active study desks (ASD) were easy to use	29	20	6	0	1
Would use ASD regularly if available	21	22	9	2	2
Would be less sedentary with more ASD	22	23	9	1	1
Can easily be used in a study space	23	24	7	2	0
Could perform regular computer tasks on ASD	15	24	14	2	1
Could perform regular reading tasks on ASD	17	26	8	5	0
School work can be completed normally on ASD	14	23	12	7	0
Quality of school work decreased on ASD	0	5	9	25	17
Felt more focused on school work on ASD	11	19	20	6	0
Uncomfortable using in the presence of others	5	11	12	19	9
Noise level decreases ability to study	1	5	12	22	16
Distracted while others are on ASD	1	5	12	22	16

\*Two participants did not answer this question

## Personal Experience - Related to Health (n=56\*)

Statement	Strongly Agree (n)	Agree (n)	Neutral (n)	Disagree (n)	Strongly Disagree (n)
Mood is boosted after active study desk (ASD) use	13	29	12	2	0
Stress is reduced after ASD use	14	29	10	3	0
Boosts my energy levels	13	29	12	2	0
Reduces joint muscle pain	6	12	33	5	0
Improvements in grades since use	3	7	40	6	0
I experienced more pain	1	0	6	21	28

\*Two participants did not answer this question

## Feedback on active study desks:

### What students liked

- ▶ Participants agreed or strongly agreed that active study stations helped:
  - ▶ Reduce feelings of anxiety or restlessness
  - ▶ Relieve back and joint pain
  - ▶ Assist with focus
- ▶ Moving while working was viewed as practical and time saving
- ▶ It's fun!

*"I love being able to walk slowly as I work on my computer. It really helps me focus...for some reason walking while working helps keep me so focused that I can am not distracted by other distractions like talking or other noises. I also found I spent less time on social media."*

*"Being able to walk while working on the computer makes a huge difference in my back pain from sitting all day. If I do one hour on it, my whole body feels less restless and I can sit in class without body aches and focus much better."*

*"I am able to move while I study. I get back pain from sitting so much. Also, it keeps me from getting anxious while sitting for long periods of time."*

## Feedback on active study desks:

### What students didn't like

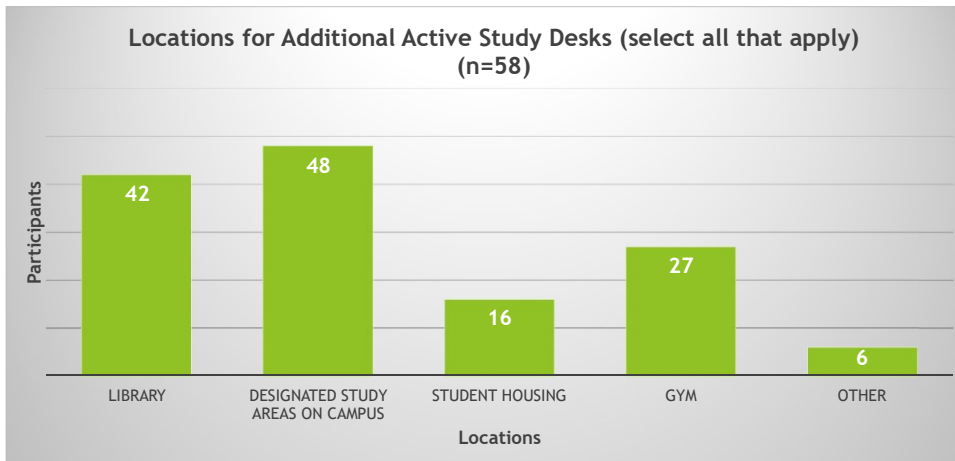
- ▶ Many did not enjoy the public location; preference for more private location or located in room with similar desks
- ▶ Some worried about the noise the desks make
- ▶ Typing and writing more difficult for some participants
- ▶ Some spoke of the adaptations needed to raise laptops higher to make reading easier

*"I found it difficult to concentrate and write while walking. Much of my schoolwork involves writing notes or doing problems by hand and I found this difficult on the treadmill desk."*

*"I love the desk - the only thing I wish it had was an adaptive component to raise my laptop higher than where my hands/arms rest so that I don't have to lean forward to read my monitor."*

*"I find it awkward to use the treadmill desk around others sometimes. I worry about if I'm bothering other people with the noise, or if I look awkward myself using it."*

## Where else on campus should active study desks be placed?



## Negative comments about active study desks that were actually positive

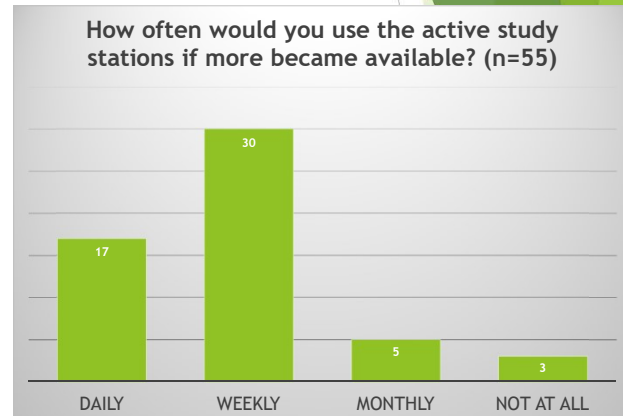
- ▶ The desks were always busy, hard to get time on one
- ▶ 2 hour time limit too long to allow for others to use

*"2 hours is too long. I came 5 times and only once was it available"*

*"There are not enough of them!"*

## Community Interest

- ▶ 87% of participants agreed or strongly agreed that the treadmill desk should remain in the library/on campus permanently
- ▶ 67% of participants responded positively towards the idea of Standing Desks around campus
- ▶ Almost all participants shared that they would use the active study stations at least once a month
- ▶ 88% of participants either agreed or strongly agreed that they would recommend the active study stations to others



## Other user comments and recommendations

- ▶ Some participants shared a preference for either the bike desk or the treadmill desk
- ▶ The bike desk was easier to write on compared to the treadmill desk
- ▶ Two bike desk users stated that the seat was not comfortable
- ▶ One participant stated that they would enjoy if active study stations were placed next to each other so that they may study with their friends, this idea was also shared to researchers during recruitment and promotion at booths

***“I really enjoy the treadmill desk. I am seriously considering buying one for home use.”***

## Conclusion

- ▶ In general, participants found the active study stations to be useful tools in:
  - ▶ Both decreasing sedentary behavior and increasing physical activity
  - ▶ Relieving stress and anxiety
  - ▶ Increasing concentration
  - ▶ Reducing back and joint pain
- ▶ There is equal interest among both the bike desk and the treadmill desk by participants
- ▶ There were relatively few complaints about the stations, and those that were made can mostly be fixed by increasing availability, diversity, and location of active study stations on campus

## Next steps

- ▶ Reported sedentary behavior among students on campus supports the urgent need to find ways to integrate physical activity into campus life
- ▶ Current developments:
  - ▶ An active study area with 6 additional active study stations will be available at UBCO in the new Teaching and Learning Centre in September 2018
  - ▶ Promotion of walking trails network on campus
  - ▶ Two new access points by bicycle will be available in September 2018
  - ▶ Continue to expand opportunities for increasing physical activity on campus (e.g., more standing desks in classrooms, active work stations in other locations on campus, etc.)

# Any Questions?



*Voice*  
CAMPUS HEALTH PROJECT