University of British Columbia

Social Ecological Economic Development Studies (SEEDS) Sustainability Program

Student Research Report

COVID-19 Pandemic's Effect on UBC's Staff Member's Climate-Friendly Behaviours

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Prepared for:

Course Code: PSYC 421

University of British Columbia

Date: 13 April 2021

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April 13, 2021

Executive Summary

The current study brought together climate change and the COVID-19 pandemic. Most of the previous literature done about the pandemic relates to mental well-being, not taking into account the effect of the pandemic on behaviours that can affect climate change (Cénat et al., 2020; Li, Fu, Fan, Zhu, & Li, 2021; Yamamoto, Uchiumi, Suzuki, Yoshimoto, & Murillo-Rodriguez, 2020). In specific, this study analyzed the effect of the COVID-19 Pandemic on the University of British Columbia's staff member's climate-friendly behaviour. We previously predicted that the high-stress environment created by the pandemic would decrease UBC staff members' climate-friendly behaviour. There were three different time frames for staff members: pre-pandemic, present pandemic and post-pandemic. A questionnaire measured five different climate-friendly behaviours: driving of personal vehicles, flying, energy conservation at home, single-use plastic items and eating animal products. 58 participants completed this survey. A two-ANOVA analysis revealed significance for the climate-friendly behaviours decreasing in the post-pandemic condition. Although further analysis using a Post Hoc Holm test revealed that significance consisted only in flying behaviour in post-pandemic condition. This was even more prevalent in the time conditions: pandemic to post-pandemic.

Keywords: Climate-friendly behaviour, COVID-19 Pandemic, flying

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Research done on the COVID-19 pandemic has related to the effect of lockdown measures on mental well-being (Cénat et al., 2020; Li, Fu, Fan, Zhu, & Li, 2021; Yamamoto, Uchiumi, Suzuki, Yoshimoto, & Murillo-Rodriguez, 2020). Moreover, research done on professors at the University of Ottawa during the pandemic has shown an increase in stress and anxiety as they had to adapt their research labs online (Cénat et al., 2020). This brings to light a stressor that may affect the University of British Columbia (UBC) staff during the pandemic.

Previous research on climate change has analyzed psychological adaptation (Helm, Pollitt, Barnett, Curran, & Craig, 2018). Climate change research has also investigated how one's awareness of climate change may affect their actions (Okaka & Odhiambo, 2018). For example, research conducted by Homburg and Stolberg (2006) found that their four studies were supportive of problem-focused coping depicting a connection between appraisal processes and pro-environmental behaviours. Furthermore, there has also been more recent research that found that those who experience environmental stress due to climate are more likely to experience climate anxiety and try to use it as motivation to reduce their personal effects on climate change (Clayton, 2020).

The goal is to identify the attitudes UBC staff members have towards climate during the COVID-19 pandemic. Thereby combining climate change and the pandemic, unlike past research. We focused on measuring people's behaviours as we believe it will reflect some aspects of the attitudes people hold. Thus, our research question is: how have the three stages (pre-pandemic, present-day pandemic, and post-pandemic) of the COVID-19 Pandemic affected the University of British Columbia's staff member's frequency of climate-friendly behaviors?

Regarding previous studies, people seem to be more likely to change their behaviour to become more climate-friendly when they find themselves in a high-stress environment caused by climate change (Clayton, 2020). Due to the COVID-19 pandemic, staff members were forced to work remotely from home, and past research has found that there has been an increase in stress levels amongst university professors (Cénat et al., 2020). Therefore, we hypothesize that the high-stress environment created by the pandemic will decrease UBC staff members' climate-friendly behaviour. This new high-stress environment is not directly related to climate change and thus, people are not motivated to change their behaviour in a climate-friendly manner.

Methods

Participants

The sample for this study is from the University of British Columbia staff members at the Vancouver campus. Participants were recruited by our client reaching out to her contacts. Additionally, we reached out to 21 departments and faculties to attain a more diverse sample. We gained a total of 75 participants who responded to our survey although 16 did not complete, and one did not consent. This was lower than the number of participants calculated using G-power, which was found to be 180 participants to be able to have a power of 0.95. This calculation used the eta square from this study (η^2=0.012) at an alpha level of 0.05. There are 58 participants' that we were able to include in our research. In this sample, there were 42 females, 10 males, and 1 preferred not to answer. The participants' age was a range of 24 to 72 years, with a mean of 46.8. Five participants did not answer the demographic questions.

Conditions

The questionnaire included three-time conditions: pre-pandemic, present pandemic, and post-pandemic. These three periods were selected to attest to the differing levels of stress related to the COVID-19 pandemic. The first condition January to March 2020 was when active climate

change movements were occurring before COVID-19 related restrictions were implemented in the Vancouver area. The second period is the present condition in which COVID-19 restrictions have been in place, in which many are working remotely from home between January to March 2021. Most participants would have been experiencing these restrictions for almost a year, therefore, leading to ongoing stress. The last condition is the future period between January to March 2023, in which we believe that COVID-19 restrictions will be lifted. As the sample is Vancouver UBC staff members we assume all have been experiencing the pandemic in similar environments.

Measures

To investigate the differences in these periods in respect to climate-friendly behaviours we used a questionnaire (See Appendix B) to have participants recall the frequency of these behaviours. The five climate-friendly behaviours we measured are driving, flying, energy conservation, animal product consumption, and plastic usage. All behaviours except flying were measured on average days per week, flying was measured during the given period. These five different behaviours were chosen to allow for a diverse understanding of our participants' climate-related behaviours. Moreover, our client directed us towards these as this is what they were interested in understanding. These behaviours apply to many of our population as they do not depend on specific factors such as age.

Procedure

For data collection, a survey was created on UBC Qualtrics. The survey was created on February 25th, 2021, and was launched and distributed. On March 4th, 2021, 16 departments/faculties were contacted as well as over 550 contacts with the cooperation of the client. The original deadline for the survey was March 20th however, due to the lack of respondents the deadline was extended to the 30th of March. A reminder was sent to the client and an additional 6 departments were contacted. Finding the correct people to contact from the departments caused difficulty. Above each condition there was a reminder of what the period encompassed, such as "Imagine the COVID-19 pandemic has concluded, it is safe once again to meet with friends and relatives, and life has settled into a "new normal". We ask that you consider what your **future** behaviour may be, **post-COVID-19** (between January 2023 - March 2023)." For more examples refer to Appendix B.

Results

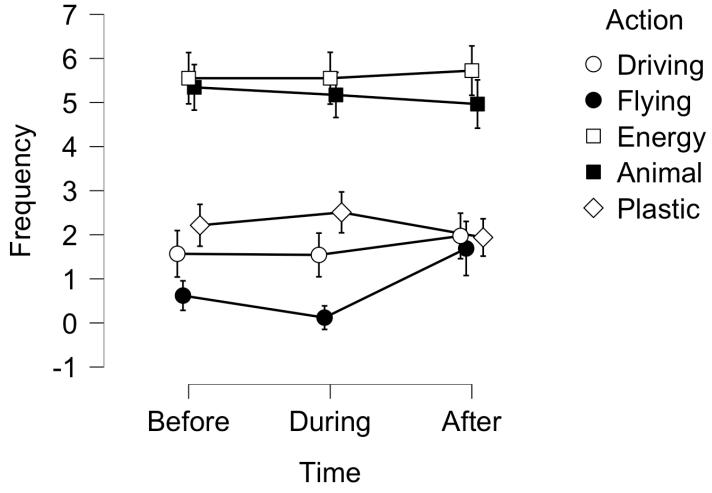
With a two-tailed F test at $\alpha = 0.05$ a two-way repeated-measures ANOVA analysis of these time frames showed significance ($F(57,8) = 8.49$ $p < 0.001$) on climate-friendly behaviour. A Holm post-hoc test followed this to find if there is a significant difference between the measures and conditions. This analysis revealed that there is only significance for the flying behaviour in the time conditions. The pre-pandemic condition and post-pandemic condition in flying showed significance ($p<0.001$), as well as the pandemic to post-pandemic condition ($p<0.001$). Moreover, from the present to post-pandemic condition participants believe they will increase their flying on average by one flight (μ_d=-1.069). Refer to Figure 1 to see the results in a graph format.

We can reject the null hypothesis for this study and choose an alternate hypothesis since our hypothesis is not supported by these results. These hypotheses should do a more in-depth exploration of the reasoning for the decrease of climate-friendly behaviour post-pandemic.

Additionally bringing to light how the aftermath of environmental stress can negatively affect climate-friendly behaviours.

Figure 1

How pandemic conditions affect frequency of behaviours



Discussion

The purpose of this study is to determine whether the high-stress environment provoked by the pandemic will decrease people's climate-friendly behaviour. The data analysis demonstrates that the data collected is not consistent with the hypothesis. There is statistically significant evidence that the participant's climate-friendly behaviour changed as the pandemic progressed. Upon further analysis, it was apparent that this only held for flying and other behaviours remained uninfluenced regardless of the increased stress level.

Travel has occupied the main part of our thoughts and has become a luxury since air travel is greatly considered nonessential and for vacations. Flying became a freedom that populations lost due to restrictions, limiting their ability to freely plan vacations or trips without breaking COVID-19 guidelines. Therefore participants may believe that it will once again be an option during the post-pandemic condition, whereas due to the restrictions that cause more expenses and the current state of the pandemic it has not been a possibility for many. Especially since the rest of the measured behaviours can still be practiced in people's daily lives. Additionally, with travel restrictions, many people had to cancel or reschedule their plans, as well as make new plans to look forward to once the pandemic is over. These factors may have possibly led people to overestimate the number of flights they would be taking in the future.

Furthermore, the results indicate the other measures were not significant. This suggests the frequency of the other climate-friendly behaviours did not change throughout the different times. In contrast to the hypothesis, the participants' other behaviours were not significantly affected due to the pandemic. This illustrates that despite the many changes the pandemic brought into people's lives, people did not change some of their behaviours related to the climate.

From the results, we can assume that people a part of the UBC Vancouver staff will increase their flights post-pandemic more than our baseline, pre-pandemic. Although this study

does not take into account the possibility that participants were already fearful of COVID-19 as the first case was reported in December of 2019 (*Coronavirus disease 2019 (COVID-19) Situation Report-94*, 2020). Therefore this baseline measure may not accurately betray life before pandemic, thereby skewing our data to show a steeper increase of air travel from pre-pandemic to post-pandemic.

Limitations

Based on our participant size being lower than what was necessary to obtain a power of 0.95 this study has a higher likelihood of having a type II error. Therefore, even with our results showing significance, we cannot be certain that the null hypothesis is not true in the population. Future research should increase the participant sample to at least 180 to gain the power necessary to reject the null hypothesis with little doubt in this experiment.

A limitation that should be noted is the method used to collect the data. This study solely relied on the participants' self-report, which comes with several downfalls. For the pre-pandemic condition, the responses are based on the participants' memory. Memory can be distorted and may not be accurate. Additionally, the post-pandemic condition is no more than speculation of the future. The responses reflect the participants' prediction of their future behaviour, not a precise indication of their behaviour. Thus, with the chosen method of self-report the overall accuracy of the data is restricted. A way to fix this self-report problem would be to do a longitudinal study where you check in with participants during these periods to not allow for them to recall a memory from a year ago. However, this would not have been possible for the pre-pandemic condition as no one could have predicted the environment we have now found ourselves in. Moreover, if this study was done in the post-pandemic condition when restrictions loosened, it would then be more than speculation.

The questions used to measure the climate-friendly behaviour were the frequency of days per week or per period. Although this allowed to identify how often the behavior was taken into action by the participants it does not accurately measure the actions. There is a possibility that participants drove their vehicle once a day or multiple times within a day, although either way it would have only been counted as one time. Additionally, measuring the amount of consumption of animal products can differ by one product or multiple meals in a day. The frequency is not exactly accurate. Therefore, future research should have more precise instructions to increase the accuracy of the measurement.

This study does not allow to measure the intention behind each climate-friendly behaviour. Such that the participants may have been taking certain behaviours without the concern about the climate. Several of these behaviours had been directly affected by the COVID-19 pandemic restrictions. For example, the restrictions on borders limited the number of flights. As well in grocery stores banned the use of personal bags to avoid infections, compelling people to use single-use plastic bags.

The unique nature of this study related to the pandemic makes this study difficult to replicate. These conditions are difficult to control since they are related to the pandemic and personal environment. This allows for this experiment to directly relate to the real world instead

of using laboratory conditions. However, this creates the problem of multiple factors in one's environment that could individually affect one's behaviour within these times during the pandemic. These can include economical hardship brought on because of the pandemic, and/or death or sickness in the family.

Moreover, past research suggests that those who had previously lived in chronic stress environments, such as minorities, would have dealt with the stresses of the pandemic differently (Jackson, Knight, & Rafferty, 2010). The possible differences of past stressful environments were not taken into account in this study. Which could largely have affected one's ability to cope with the stress from the environment created by the pandemic.

Recommendations for Client

Taking the results into consideration, the first suggestion to the client is to raise awareness of the implications of flying. The statistically significant result from the data showed an increase in flying from the pre-pandemic and during the pandemic to the post-pandemic. Although it is understandable for people to want to travel and fly more frequently post-pandemic it is important to inform them of the impact flying has on the climate. A program that may be helpful is the IATA Carbon offset program, which is implemented in over 30 airlines to reduce carbon emissions ("Carbon Offset Program," n.d.).

When considering programs to offset CO_2 emissions it may be helpful to look at past research conducted on why an airport or airline is more likely to participate in pro-environmental programs. For example, the research that was conducted by Falk and Hagsten (2020), although limited to European airports, discovered that an airport was more likely to participate if they are fast-growing, had a large number of airlines and passengers, and finally if they were apart of a group that would encourage them to join environmentally friendly programs. On the contrary Falk and Hagsten (2020) also found that airports that cater to low-cost airlines would be less inclined to join these programs- possibly because the certification programs studied are not cost-effective. Therefore, targeting airlines based on these factors may have more of an impact than individual programs that specifically educate the population. Although educational programs may also be able to supplement these efforts to decrease carbon emissions.

A recommendation is to place programs before the COVID-19 restrictions loosen. As our results can be used as evidence of a decrease in climate-friendly behaviour in future conditions. Starting to raise awareness early may be the solution to avoiding a drastic increase of negative effects on climate change.

Additionally, the results show that despite the high-stress environment created by the pandemic, there were no significant behavioural changes between pre-pandemic and present pandemic conditions. This suggests that climate-friendly behaviour is not easily influenced by environments that do not relate to climate change. With this information, we can suggest that climate awareness programs are vital during and after the pandemic.

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Appendix A

Table A1

Descriptive Statistics: Age

Mean	46.887
Standard Deviation	11.851
Minimum	24
Maximum	72

Table A2

Descriptive Statistics: Gender

Male	42
Female	10
Prefer not to say	1
Did not answer	5

Table A3

Repeated Measures ANOVA Results

Within Subjects Effects

Cases	Sum of Squares	df	Mean Square	F	p	η^2
Time	11.976	2	5.988	4.488	0.013	0.002
Residuals	152.124	114	1.334			
Action	3224.401 [a]	4 [a]	806.100 [a]	83.401 [a]	< .001 [a]	0.467
Residuals	2203.699	228	9.665			
Time ✻ Action	84.044 [a]	8 [a]	10.505 [a]	8.488 [a]	< .001 [a]	0.012
Residuals	564.356	456	1.238			

Note. Type III Sum of Squares
[a] Mauchly's test of sphericity indicates that the assumption of sphericity is violated ($p < .05$).

Between Subjects Effects

Cases	Sum of Squares	df	Mean Square	F	p
Residuals	656.550	57	11.518		

Note. Type III Sum of Squares

Table A4

Descriptives

Time	Action	Mean	SD	N
After	Animal	4.966	2.317	58
	Driving	1.974	2.128	58
	Energy	5.724	2.191	58
	Flying	1.690	2.444	58
	Plastic	1.940	1.807	58
Before	Animal	5.345	2.283	58
	Driving	1.569	2.191	58
	Energy	5.552	2.257	58

	Flying	0.621	1.211	58
	Plastic	2.216	1.899	58
During	Animal	5.172	2.257	58
	Driving	1.543	1.934	58
	Energy	5.552	2.363	58
	Flying	0.121	0.595	58
	Plastic	2.509	1.966	58

Table A5

Holm Post Hoc Tests

Post Hoc Comparisons - Time

		Mean Difference	SE	t	p_{holm}
Before	During.	0.081	0.096	0.845	0.400
	After	-0.198	0.096	-2.067	0.082
During.	After	-0.279	0.096	-2.912	0.013

Note. P-value adjusted for comparing a family of 3

Note. Results are averaged over the levels of: Action

Post Hoc Comparisons - Action

		Mean Difference	SE	t	p_{holm}
Driving	Flying	0.885	0.333	2.655	0.025
	Energy	-3.914	0.333	-11.742	< .001
	Animal	-3.466	0.333	-10.397	< .001
	Plastic	-0.526	0.333	-1.578	0.232
Flying	Energy	-4.799	0.333	-14.398	< .001
	Animal	-4.351	0.333	-13.053	< .001
	Plastic	-1.411	0.333	-4.233	< .001
Energy	Animal	0.448	0.333	1.345	0.232
	Plastic	3.388	0.333	10.164	< .001
Animal	Plastic	2.940	0.333	8.820	< .001

Note. P-value adjusted for comparing a family of 10

Note. Results are averaged over the levels of: Time

Post Hoc Comparisons - Time ✻ Action

		Mean Difference	SE	t	p_{holm}

Before, Driving	During., Driving	0.026	0.208	0.124	1.000
	After, Driving	-0.405	0.208	-1.946	1.000
	Before, Flying	0.948	0.374	2.538	0.428
	During., Flying	1.448	0.374	3.868	0.006
	After, Flying	-0.121	0.374	-0.322	1.000
	Before, Energy	-3.983	0.374	-10.662	< .001
	During., Energy	-3.983	0.374	-10.636	< .001
	After, Energy	-4.155	0.374	-11.097	< .001
	Before, Animal	-3.776	0.374	-10.108	< .001
	During., Animal	-3.603	0.374	-9.623	< .001
	After, Animal	-3.397	0.374	-9.071	< .001
	Before, Plastic	-0.647	0.374	-1.731	1.000
	During., Plastic	-0.940	0.374	-2.509	0.451
	After, Plastic	-0.371	0.374	-0.990	1.000
During., Driving	After, Driving	-0.431	0.208	-2.070	1.000
	Before, Flying	0.922	0.374	2.463	0.498
	During., Flying	1.422	0.374	3.808	0.007
	After, Flying	-0.147	0.374	-0.391	1.000

	Before, Energy	-4.009	0.374	-10.705	< .001
	During., Energy	-4.009	0.374	-10.731	< .001
	After, Energy	-4.181	0.374	-11.166	< .001
	Before, Animal	-3.802	0.374	-10.153	< .001
	During., Animal	-3.629	0.374	-9.715	< .001
	After, Animal	-3.422	0.374	-9.140	< .001
	Before, Plastic	-0.672	0.374	-1.796	1.000
	During., Plastic	-0.966	0.374	-2.585	0.386
	After, Plastic	-0.397	0.374	-1.059	1.000
After, Driving	Before, Flying	1.353	0.374	3.614	0.014
	During., Flying	1.853	0.374	4.950	< .001
	After, Flying	0.284	0.374	0.762	1.000
	Before, Energy	-3.578	0.374	-9.554	< .001
	During., Energy	-3.578	0.374	-9.554	< .001
	After, Energy	-3.750	0.374	-10.039	< .001
	Before, Animal	-3.371	0.374	-9.002	< .001
	During., Animal	-3.198	0.374	-8.541	< .001
	After, Animal	-2.991	0.374	-8.008	< .001

	Before, Plastic	-0.241	0.374	-0.645	1.000
	During., Plastic	-0.534	0.374	-1.427	1.000
	After, Plastic	0.034	0.374	0.092	1.000
Before, Flying	During., Flying	0.500	0.208	2.402	0.566
	After, Flying	-1.069	0.208	-5.134	< .001
	Before, Energy	-4.931	0.374	-13.200	< .001
	During., Energy	-4.931	0.374	-13.169	< .001
	After, Energy	-5.103	0.374	-13.629	< .001
	Before, Animal	-4.724	0.374	-12.646	< .001
	During., Animal	-4.552	0.374	-12.156	< .001
	After, Animal	-4.345	0.374	-11.603	< .001
	Before, Plastic	-1.595	0.374	-4.269	0.001
	During., Plastic	-1.888	0.374	-5.042	< .001
	After, Plastic	-1.319	0.374	-3.522	0.019
During., Flying	After, Flying	-1.569	0.208	-7.536	< .001
	Before, Energy	-5.431	0.374	-14.504	< .001
	During., Energy	-5.431	0.374	-14.539	< .001
	After, Energy	-5.603	0.374	-14.964	< .001

	Before, Animal	-5.224	0.374	-13.951	< .001
	During., Animal	-5.052	0.374	-13.523	< .001
	After, Animal	-4.845	0.374	-12.938	< .001
	Before, Plastic	-2.095	0.374	-5.594	< .001
	During., Plastic	-2.388	0.374	-6.392	< .001
	After, Plastic	-1.819	0.374	-4.858	< .001
After, Flying	Before, Energy	-3.862	0.374	-10.314	< .001
	During., Energy	-3.862	0.374	-10.314	< .001
	After, Energy	-4.034	0.374	-10.800	< .001
	Before, Animal	-3.655	0.374	-9.761	< .001
	During., Animal	-3.483	0.374	-9.301	< .001
	After, Animal	-3.276	0.374	-8.769	< .001
	Before, Plastic	-0.526	0.374	-1.404	1.000
	During., Plastic	-0.819	0.374	-2.187	0.970
	After, Plastic	-0.250	0.374	-0.669	1.000
Before, Energy	During., Energy	-4.923e -15	0.208	-2.365e -14	1.000
	After, Energy	-0.172	0.208	-0.828	1.000
	Before, Animal	0.207	0.374	0.554	1.000

	During., Animal	0.379	0.374	1.013	1.000
	After, Animal	0.586	0.374	1.566	1.000
	Before, Plastic	3.336	0.374	8.931	< .001
	During., Plastic	3.043	0.374	8.127	< .001
	After, Plastic	3.612	0.374	9.646	< .001
During., Energy	After, Energy	-0.172	0.208	-0.828	1.000
	Before, Animal	0.207	0.374	0.553	1.000
	During., Animal	0.379	0.374	1.015	1.000
	After, Animal	0.586	0.374	1.566	1.000
	Before, Plastic	3.336	0.374	8.910	< .001
	During., Plastic	3.043	0.374	8.146	< .001
	After, Plastic	3.612	0.374	9.646	< .001
After, Energy	Before, Animal	0.379	0.374	1.013	1.000
	During., Animal	0.552	0.374	1.473	1.000
	After, Animal	0.759	0.374	2.031	1.000
	Before, Plastic	3.509	0.374	9.370	< .001
	During., Plastic	3.216	0.374	8.587	< .001
	After, Plastic	3.784	0.374	10.131	< .001

Before, Animal	During., Animal	0.172	0.208	0.828	1.000
	After, Animal	0.379	0.208	1.822	1.000
	Before, Plastic	3.129	0.374	8.377	< .001
	During., Plastic	2.836	0.374	7.574	< .001
	After, Plastic	3.405	0.374	9.094	< .001
During., Animal	After, Animal	0.207	0.208	0.994	1.000
	Before, Plastic	2.957	0.374	7.897	< .001
	During., Plastic	2.664	0.374	7.131	< .001
	After, Plastic	3.233	0.374	8.633	< .001
After, Animal	Before, Plastic	2.750	0.374	7.344	< .001
	During., Plastic	2.457	0.374	6.561	< .001
	After, Plastic	3.026	0.374	8.100	< .001
Before, Plastic	During., Plastic	-0.293	0.208	-1.408	1.000
	After, Plastic	0.276	0.208	1.325	1.000
During., Plastic	After, Plastic	0.569	0.208	2.733	0.252

Note. P-value adjusted for comparing a family of 105

Appendix B

Qualtrics survey

The COVID-19 Pandemic's effect on the UBC staff member climate friendly

Start of Block: Consent Form

Q25 Thank you for taking the time to complete our survey, before you begin please read the consent form attached below.

O I consent to this survey (1)

O I do not consent to this survey (2)

End of Block: Consent Form

Start of Block: Before the pandemic

Q28 Please recall your behaviour before the COVID-19 pandemic restrictions reached the Vancouver area (between January 2020 - March 2020).

Q1 Before the pandemic, approximately how many days in a week did you use a personal vehicle as your primary form of transportation?

_____

Q2 Before the pandemic, how many flights do you recall taking in between April 2020 - June 2020 (essential and non-essential)?

_____

Q3 Before the pandemic, how many days per a week did you go out of your way to conserve energy in your home (e.g., turning down your air conditioner, turning off lights, using cold water to wash dishes or clothes)?

_____

Q4 Before the pandemic, how many days in the week did you consume animal products (e.g., meat, eggs, diary)?

_____

Q5 Before the pandemic, how many days in the week did you use **single-use plastic items** (e.g., takeout containers, plastic bags)?

_____

End of Block: Before the pandemic

Start of Block: Please consider your present behaviour during the COVID-19 pandemic restrictions

Q30 Please consider your present behaviour during the COVID-19 pandemic restrictions in the Vancouver area (between January 2021 - March 2021)

Q1 Currently, approximately how many days in a week do you use a personal vehicle as your primary form of transportation?

_____

Q2 Currently, how many flights do you recall taking from January 2021 to present day (essential and non-essential)?

_____

Q3 Currently, how many days per a week do you go out of your way to conserve energy in your home (e.g., turning down your air conditioner, turning off lights, using cold water to wash dishes or clothes)?

_____

Q4 Currently, how many days in the week do you consume animal products (e.g., meat, eggs, diary)?

_____

Q5 Currently, how many days in the week do you use **single-use plastic items** (e.g., takeout containers, plastic bags)?

_____

End of Block: Please consider your present behaviour during the COVID-19 pandemic restrictions

Start of Block: Imagine the COVID-19 pandemic has concluded, it is safe once again to meet with

Q31 Imagine the COVID-19 pandemic has concluded, it is safe once again to meet with friends and relatives, and life has settled into a "new normal". We ask that you consider what your future behaviour may be, post-COVID-19 (between January 2023 - March 2023)

Q1 After the pandemic, approximately how many days in a week do you believe you will you use a personal vehicle as your primary form of transportation?

_____

Q2 After the pandemic, how many flights do you believe you will be taking from January 2023 to March 2023 (essential and non-essential)?

_____

Q3 After the pandemic, how many days per a week do think you will go out of your way to conserve energy in your home (e.g., turning down your air conditioner, turning off lights, using cold water to wash dishes or clothes)?

_____

Q4 After the pandemic, how many days in the week do you think you will consume animal products (e.g., meat, eggs, diary)?

_____

Q5 After the pandemic, how many days in the week do you think you will use **single-use plastic** items (e.g., takeout containers, plastic bags)?

_____

End of Block: Imagine the COVID-19 pandemic has concluded, it is safe once again to meet with

Start of Block: Demographics

Q32 Demographics (optional)

Q1 Please indicate your age

_____

Q2 What gender do you identify with

O Male (1)

O Female (2)

O Other (3)

O Prefer not to say (4)

End of Block: Demographics

Appendix C

From the beginning the group members have all been cooperating fairly. The process of writing the proposal, to create the questions, and contacting the participants, was done by all members. All members of the Tree Musketeers contributed to the planning, execution and writing of this report and presenting in front of the class.