**University of British Columbia** 

Social Ecological Economic Development Studies (SEEDS) Sustainability Program

**Student Research Report** 

# Highlighting Benefits: Promoting Volunteer Engagement at the UBC Farm

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Prepared for: Student Health and Wellbeing

Course Code: PSYC 421

University of British Columbia

Date: 16 April 2023

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**UBC sustainability** 

# Highlighting Benefits: Promoting Volunteer Engagement at the UBC Farm

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### **Executive Summary**

This study investigates the impact of highlighting tangible and psychological benefits on volunteer engagement at the UBC farm. By modifying the volunteer description on the UBC farm website, we aimed to discern the most effective approach to maximizing participant engagement. Utilizing online surveys, participants (N = 272) were randomly allocated into one of three groups: control (mirroring the existing volunteer description on the UBC farm website), tangible (highlighting tangible benefits), and tangible plus psychological (highlighting both tangible and psychological benefits) conditions. By using the Kruskal-Wallis test and post-hoc method, we found that using a volunteer description that highlights tangible benefits can promote students' willingness to volunteer on the UBC farm, compared to the control condition that used the volunteer description without highlighting. However, the additional highlight of psychological benefits does not lead to a higher willingness to volunteer. An exploratory analysis using ANOVA suggests that regardless of whether or not the benefits are highlighted in the volunteer condition, community members experiencing food insecurity show a higher willingness to volunteer on the UBC farm, compared to those who do not. Furthermore, this report offers targeted recommendations for the UBC farm to enhance student engagement in volunteer initiatives.

### Introduction

Engaging in nature-based activities has been linked to improved mental health outcomes, including reduced stress and anxiety, improved mood, and increased resilience (Soga et al., 2017). A study conducted by Lampert et al. (2021) found that people who engage in a community garden reported improved well-being, increased physical activity, and improved diet. Additionally, volunteering can promote social connections and a sense of community, which have been linked to improved well-being and reduced risk of mental health issues (Thoits, 2011). The UBC Farm is an institution that provides community members with the opportunity to interact with nature and receive local organic produce through volunteer work. There are tangible and psychological benefits that UBC community members can gain through involvement with the farm. Therefore, it is important to encourage community members to volunteer at the UBC farm.

Martinez and McMullin (2004) have demonstrated that those who prioritize volunteer work despite other commitments have firmer convictions in considering their involvement as beneficial to society and oneself. The belief that volunteer work is effective in promoting changes in oneself is the most crucial factor in decisions about engagement in volunteer work (Martinez & McMullin, 2004; Harp & Allen, 2016). The ambiguity of tangible and psychological rewards can decrease prospective volunteers' certainty about the changes they can make in their lives. Therefore, uncertainty about the rewards people will gain from volunteer work can be a barrier to their decision to engage. Clarifying and emphasizing the specific rewards of volunteering can be a possible method of overcoming this barrier. In previous studies, behavioural intervention training sessions that introduce volunteering benefits and promote self-efficacy encourage older adults to volunteer (Jiang et al., 2019). This suggests that clarification of rewards and enhancement of individual certainty on the changes they can make on themselves from volunteering promotes engagement.

Lindstrom et al. (2023) suggest that choice architecture strategies can be used to promote favourable behaviours among populations that need motivational incentives. The usage of a nudge can influence behaviour by "adding simple choice architecture interventions" (p. 100) such as making stimuli more convenient (priming) and appealing through salience and effect. Therefore, highlighting rewards can promote volunteer engagement. However, there is a lack of research focused on the potential effects of highlighting rewards in volunteer position descriptions on engagement.

We addressed this gap by testing whether highlighting the tangible and psychological benefits of volunteer work could promote community members' willingness to volunteer on the UBC farm. The current design of the volunteer description on the farm website mentions the rewards in a stream of text without highlighting or emphasis. The personal benefits volunteers will gain from the experience are not emphasized and the description of those benefits does not adequately grab community members' attention. As a consequence, community members might miss information about rewards and raise uncertainty about the benefits they will gain from engagement. This may lead to less willingness to volunteer. Based on studies conducted by Jiang et al. (2019) and Lindstrom et al. (2023), we propose that highlighting the rewards of volunteering on the UBC farm may increase volunteer willingness.

The nature of the reward included in the volunteer position description can influence volunteer engagement. The matching principle states that if the rewards provided by a volunteer position match the motivation of the participants, they are more likely to engage in that specific volunteer position and will have more sustained engagement (Lewin, 1936 as cited in Stukas, 2007). With factor analysis, Nordbø et.al (2023) have discovered that several of the main motivations to volunteer at a farm are psychological profits (i.e., escapism and a sustainable lifestyle) and tangible benefits (i.e., economic support). The study suggests that

psychological gains and tangible rewards are both crucial factors to promote volunteer engagement. Kirby et al. (2021) support this idea by analyzing data from 74 urban agriculture sites and have also found that psychological motivation has more positive effects than tangible profit does. Therefore, we propose that highlighting the tangible benefits of volunteering on the UBC farm can lead to a higher willingness to volunteer. Because both psychological and tangible benefits motivate volunteer engagement, highlighting additional psychological benefits on top of tangible benefits may lead to an even higher willingness to engage in volunteer work at the UBC farm.

### **Research Question and Hypothesis**

Our research team designed a study to answer the question: how does highlighting the tangible and psychological benefits of volunteer work impact volunteering on the UBC farm among UBC community members? The long-term goal of this research project is to help secure community members' food security and promote mental well-being through participation on the farm. Our first hypothesis is that highlighting the tangible rewards of volunteering would lead to a higher willingness to volunteer on the farm. This is compared to using a volunteer description without highlighting the tangible rewards. Our second hypothesis is that highlighting both tangible and psychological rewards would lead to a higher willingness to volunteer description and psychological rewards.

### Methods

### **Participants**

342 participants consented to participate. Of these participants, 272 completed the study (Mage = 21.04 years, SD = 1.51 years). This sample size met our pre-registered target of 246 giving us 80% power to detect a minimum effect size of .2 at a .05 significance level (see Figure 1 in Appendix B). The sample consisted of 72.06% females, 16.54% males, 2.94% non-binary, and 8.46% unknown. Among them, there are 83.09% students, 8.46% non-students, and 8.46% unknown. 16.91% of participants are working full-time, 42.28% part-time, 31.99% are not working and 8.46% reported an unknown status. Furthermore, 19.49% of participants are experiencing food insecurity, 49.63% are not experiencing food insecurity, and 30.51% have an unknown status (see Table 1 in Appendix A).

#### Conditions

In a between-group design, participants were randomly assigned to one of three conditions: control, tangible benefits, or tangible plus psychological benefits. For the control condition, participants viewed the volunteer program description and image copied from the UBC farm website. For the condition of tangible benefits, participants were exposed to the same volunteer program description. However, the description of tangible benefits was highlighted using a point form and a different type of background to separate this reward section from other aspects of the description. The highlighted tangible benefits were "20% off discounts on farm produce after working for 10 hours, free produce leftover after shift and a UBC Farm T-shirt after working for 20 hours". For the tangible plus psychological benefits condition, tangible benefits were highlighted in the same way as in the condition of the tangible benefits. However, an additional section on psychological benefits was added to the reward section and the description of it was highlighted in the same manner. The additional highlighted psychological benefits were "improved physical and mental well-being, reduced stress and depression, and quality connections with other volunteers". For the tangible and tangible plus psychological benefits conditions, the reward section title had been changed from "program reward" to "what you'll get", which is more motivating wording to further highlight the reward section to attract participants' attention. Measures

### Measures

After the participants read about the description of the volunteer program, we asked the participants to answer how many hours on average they would like to volunteer at the farm per week. They responded by marking a number on a continuous bar scale ranging from 0 to 20 hours. Our dependent variable is the number of hours the participants are willing to volunteer on the UBC farm per week, which signifies their willingness to do so. **Procedure** 

The survey was divided into 4 sections (see Appendix C), including the consent form, the volunteer hours section, the demographic section, and the debriefing form. Participants need to consent to participate in the study to complete the rest of the survey. For the volunteer hours section, the volunteer description from one of the conditions was presented. Participants were asked to indicate how hours they were willing to volunteer on the UBC farm per week. The demographic section included questions about gender, age, education, student status, employment, and food insecurity. At the end, participants were debriefed. The survey was made on UBC Qualitric and the link to the survey was shared with the UBC community through Piazza, Instagram, Messenger, and Discord group chats. This was done to recruit participants. Data collection started in March. 2nd and ended in April. 11th.

### Results

All statistical analyses were conducted using R. Means, standard deviations, and the number of samples for each condition are calculated (see Table 2 in Appendix A). Specifically, 91 participants completed the control condition (Mean = 3.16 hours, SD = 3.10 hours), 85 completed the tangible condition (Mean = 4.81 hours, SD = 4.29 hours), and 96 completed the tangible plus psychological condition (Mean = 4.54 hours, SD = 4.91 hours).

Since the data on hours willing to volunteer was not normally distributed (see Figure 2), a non-parametric Kruskal-Wallis test was used to see whether the mean hours willing to volunteer differed between the three conditions. The result was significant (H(2) = 6.69, p = .04), suggesting a pair of the conditions' mean hours differ considerably. The effect size for the differences between the groups was calculated with Cohen's d, the value is .27 which is a small effect. Further post-hoc analysis was conducted to see which pair was significantly different from the other. The Dunn test was used with Bonferroni adjustment and the results (see Table 3 in Appendix A) indicate hours willing to volunteer in the tangible condition are significantly greater than in the control condition (Z = -2.56, p = .03). This result supports the first hypothesis that highlighting tangible rewards for volunteering would lead to higher students' willingness to volunteer at the farm. This is compared to using a volunteer description without highlighting tangible rewards. However, the tangible plus psychological condition did not differ significantly from either the control condition (Z = -1.62, p = .31) or the tangible condition (Z = 0.99, p = .96). This does not support the second hypothesis, in which highlighting both tangible and psychological rewards would lead to higher engagement in volunteering than only highlighting tangible rewards.

Exploratory analysis was then conducted to examine potential interaction effects between demographic variables and experimental conditions (see Appendix A). An ANCOVA test was performed to explore whether age affects volunteer willingness to volunteer. Neither the main effect of age (F(1, 231) = 2.49, p = .12) nor the interaction between age and conditions (F(2, 231) = 0.89, p = .41) was significant. Using two-way ANOVA tests, experimental conditions had no significant interaction effect with gender (F(4, 240) = 1.27, p = .28), student status (F(2, 243) = 2.49, p = .08) employment status (F(4, 239) = .65, p = .63), or food insecurity (F(2, 240) = 1.28, p = .28). The main effect of gender (F(3, 240) = 1.28, p = .28), student status (F(1, 243) = 2.71, p = .10), and employment status (F(2, 239) = 2.08, p = .13) was not significant, however, a significant main effect of food insecurity was observed (F(1, 182) = 5.90, p = .02). Post-hoc analysis using Tukey's HSD test suggested participants who experience food insecurity are willing to volunteer 1.59 more hours than those who do not (p = .02). It is imperative to note that our data did not meet the normality assumptions required by the ANCOVA or ANOVA test. Therefore, these results need to be interpreted with caution.

### Discussion

By volunteering at the UBC farm, community members can gain psychological and tangible benefits. Students' uncertainty about positive changes they can make in themselves is a barrier to student volunteering. Our first hypothesis was supported because our results suggest that highlighting the tangible benefits of volunteering on the UBC farm can improve students' willingness to engage in volunteering. This is compared to the condition that used a volunteer description without highlighting. According to Jiang et al. (2019), behavioural interventions that emphasize volunteer benefits and self-efficacy increase volunteer participation. Our study builds on this finding and suggests that highlighting tangible volunteering benefits in the volunteer. Furthermore, our finding implies that being uncertain about the tangible rewards one can receive from volunteering is a barrier that reduces an individual's willingness to volunteer. This supports previous studies that suggest uncertainty about the changes a person can make in themselves is a barrier that prevents engagement in volunteer work (Martinez & McMullin, 2004; Harp & Allen, 2016).

Our second hypothesis was not supported because highlighting both tangible and psychological rewards did not lead to an increase in engagement, compared to the conditions that solely highlighted tangible rewards or the control condition without highlights. This finding suggests that highlighting the psychological rewards in addition to the tangible reward does not increase students' willingness to volunteer on the farm. However, Nordbø et al. (2023) identified both tangible and psychological benefits as significant factors that are able to augment volunteer involvement in farm-related tasks. A possible explanation for this inconsistency is due to having additional words in the reward section which made the reward section lengthy and diffused the psychological and tangible benefits. This is a limitation of the study. Thus, further research is needed to confirm whether the results are due to the combination of psychological and tangible benefits not motivating volunteers, or that the reward description was too long and overwhelming. Future studies can research the effects of highlighting psychological benefits in a separate reward section. They can also measure an individual's willingness to volunteer on the UBC farm. If psychological benefits alone promote a willingness to volunteer, future studies can seek ways to combine the tangible and psychological without overwhelming the audience.

Our exploratory analysis suggests that UBC community members who experience food insecurity are likely to show a higher willingness to volunteer on the UBC farm, regardless of the type of reward highlighted or whether any reward is highlighted or not. It implies that individuals who have the motive for gaining access to more food are more willing to engage in activities that can be exchanged for food. This finding agrees with the "matching principle" and supports the conclusion that people are more willing to volunteer in positions that provide benefits that match their motives (Lewin, 1936 as cited in Stukas, 2007). Due to the tangible and psychological benefits an individual can gain from volunteering on the farm, it is crucial to increase community members' willingness to volunteer to promote their physical and psychological well-being. Our study suggests that to promote community members' willingness to volunteer, the UBC farm should highlight the tangible benefits of volunteering in the volunteer description. In addition, they should target individuals experiencing food insecurity.

For other volunteer programs, highlighting the tangible benefits in the volunteer description and targeting individuals with the motive to acquire those tangible benefits are potential strategies for increasing individuals' willingness to volunteer. However, further

studies are needed to determine if these strategies are effective enough to be applied to other types of volunteer programs and other populations.

As for our limitations, the first limitation is the lengthiness of the tangible plus psychological condition, which ultimately diffuses the benefits presented. In addition, the second limitation is that although we retained the number of hours participants claimed they would be willing to volunteer, this does not guarantee that they will actually do so. A third limitation identified in our study is the diminished external validity due to the majority of participants being affiliated with UBC. This factor hinders our ability to extrapolate conclusions from this research to broader population groups. In future studies, it would be effective to solve this limitation by repeating this experiment in other populations. The fourth limitation is that our findings are restricted to one specific type of volunteering, which is volunteering on the farm. Further studies can explore the effect that reward highlights have on willingness to engage in other types of volunteer programs in a broader population.

### Recommendation

Previous studies suggest that the certainty an individual has in knowing how volunteer work can improve their lives can influence their decision to volunteer (Martinez & McMullin, 2004). Uncertainty about the rewards people will gain from volunteering is a potential barrier that can interfere with an individual's willingness to engage in volunteer work. Our investigation revealed that emphasizing tangible rewards by highlighting the volunteer position description can lead to an increase in community members' willingness to volunteer on the UBC farm. In light of this finding, we recommend that the UBC farm should reconstruct its website by employing a succinct point-form approach to highlight tangible rewards to foster community members' willingness to volunteer. We also recommend that the website have a more eye-catching and engaging reward section to draw people there first. This can be done by including a more engaging title and adding a coloured background to the reward section. Furthermore, our study found that highlighting both tangible and psychological benefits will not promote members' willingness to volunteer on the UBC farm. Therefore, we suggest not adding psychological benefits to the reward section. Besides that, our study has shown that community members experiencing food insecurity have an increased propensity to volunteer at the UBC farm. This is compared to individuals who are not. Accordingly, we propose that the UBC farm deliberately targets community members experiencing food insecurity for outreach initiatives. This will benefit both the food-insecure student population and the UBC farm.

The UBC farm is a source of healthy and sustainable nourishment for UBC community members. It allows students to immerse themselves in a verdant natural environment, conferring psychological benefits. Additionally, UBC students have access to complimentary food provisions from the farm. Therefore, it is imperative to promote community engagement on the UBC farm. Our study suggests that highlighting the tangible benefits of volunteering on the UBC farm website and the strategy of targeting specific groups of UBC community members can be used to promote community members' engagement on the UBC farm.

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# Appendix

# **Appendix A: Tables** Table 1

Descriptive statistics of sample (N = 272)

Variable				
Age	Mean	SD	1	1
	21	1.51		
Gender	Female	Male	Non-binary	Unknown
	196 (72.06%)	45 (16.54%)	8 (2.94%)	23 (8.46%)
Student Status	Yes	No	1	Unknown
	226 (83.09%)	23 (8.46%)		23 (8.46%)
Employment Status	Full-time	Part-time	Not working	Unknown
	46 (16.91%)	115 (42.28%)	87 (31.99%)	23 (8.46%)
Food Insecurity	Yes	No	I	Unknown
	53 (19.49%)	135 (49.63%)		84 (30.51%)

Descriptive statistics of each experimental conditions

Condition	Mean	SD	N
Control	3.16	3.10	91
Tangible	4.81	4.29	85
Tangible and psychological	4.54	4.91	96

# Table 3

Post-hoc Dunn test results		
Condition	Z	p.adjusted
Control - Tangible	-2.56	.03*
Control - Tangible and psychological	-1.62	.31
Tangible - Tangible and psychological	0.99	.96

*Note.* \*p < .05

	df	F	р
Condition	2	3.10	.047*
Age	1	2.49	.12
Condition:Age	2	0.89	.41
Residuals	231		

# Table 5

Two-Way ANOVA of Condition Controlling for Gender		
df	F	р
2	3.99	.02*
2	0.87	.42
4	1.27	.28
240		
	<i>df</i> 2 2 4	df     F       2     3.99       2     0.87       4     1.27

	df	F	р
Condition	2	4.00	.02*
Student Status	1	2.71	.10
Condition:Student Status	2	2.49	.08
Residuals	243		

# Table 7

# Two-Way ANOVA of Condition Controlling for Employment Status

	df	F	р
Condition	2	3.80	.02*
Employment Status	2	2.08	.13
Condition:Employment Status	4	0.65	.63
Residuals	239		

*Note.* \**p* < .05

Two-Way ANOVA of Condition Controlling for Food Insecurity

	df	F	р
Condition	2	3.72	.03*
Food Insecurity	1	5.90	.02*
Condition:Food Insecurity	2	0.11	.89
Residuals	182		

# Table 9

Post-hoc Tukey to	est results	
Condition	Difference	p.adjusted
Yes - No	1.59	.02*
<i>Note.</i> * <i>p</i> < .05.		

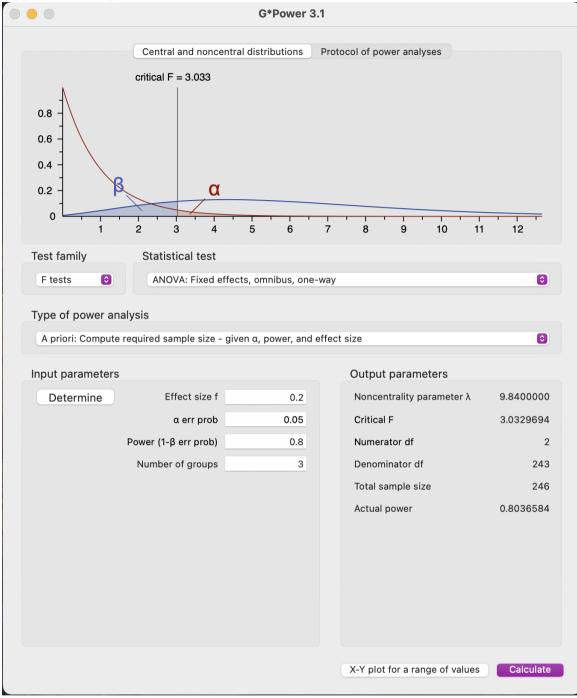




Figure 1. G Power Analysis: ANOVA

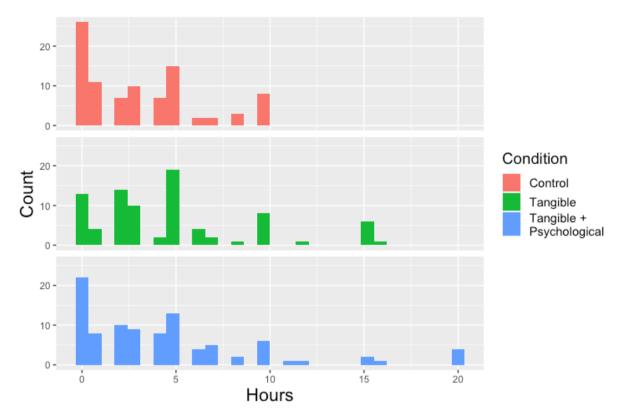


Figure 2. Frequency distribution of the hours willing to volunteer per condition

### **Appendix C: Survey**

Consent Form

Department of Psychology
University of British Columbia
Vancouver, BC, V6T 1Z4
Phone: 604.822.2755
Fax: 604.822.6923

Consent Form
Class Research Projects in PSYC 421 - Environmental Psychology

Principal Investigator: Dr. Jiaying Zhao
Course Instructor
Department of Psychology
Institute for Resources, Environment and Sustainability
Email: jiayingz@psych.ubc.ca

Introduction and Purpose

Students in the DSYC 421 - Environment Resubcleary along on a maniference on the UEC

Students in the PSYC 421 – Environment Psychology class are required to complete a research project on the UBC campus as part of their course credit. In this class, students are required to write up a research proposal, conduct a research project, collect and analyze data, present their findings in class, and submit a final report. Their final reports will be published on the SEEDS online library (https://sustain.ubc.ca/teaching-applied-learning/seeds-sustainability-program). Their projects include online surveys and experiments on a variety of sustainability topics, such as waste sorting on campus, student health and wellbeing, food consumption and diet, transportation, biodiversity perception, and exercise habits. The goal of the project is to train students to learn research techniques, how to work in teams and work with UBC clients selected by the UBC SEEDS (Social Ecological Economic Development Studies) program.

#### **Study Procedures**

If you agree to participate, the study will take about 10 minutes of your time. You will answer a few questions in the study. The data will be strictly anonymous. Your participation is entirely voluntary, and you can withdraw at any point without any penalty. Your data in the study will be recorded (e.g., any answer you give) for data analysis purposes. If you are not sure about any instructions, please do not hesitate to ask. Your data will only be used for student projects in the class. There are no risks associated with participating in this experiment. **Confidentiality** 

Your identity will be kept strictly confidential. All documents will be identified only by code number and kept in a locked filing cabinet. You will not be identified by name in any reports of the completed study. Data that will be kept on a computer hard disk will also be identified only by code number and will be encrypted and password protected so that only the principal investigator and course instructor, Dr. Jiaying Zhao and the teaching assistants will have access to it. Following the completion of the study, the data will be transferred to an encrypted and password protected hard drive and stored in a locked filing cabinet. Please note that the results of this study will be used to write a report which is published on the SEEDS library.

Remuneration

There is no remuneration for your participation. **Contact for information about the study** 

This study is being conducted by Dr. Jiaying Zhao, the principal investigator. Please contact her if you have any questions about this study. Dr. Zhao may be reached at (604) 827-2203 or <u>jiayingz@psych.ubc.ca</u>. **Contact for concerns about the rights of research subjects** 

If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, contact the Research Participant Complaint Line in the UBC Office of Research Ethics at 604-822-8598 or if long distance e-mail RSIL@ors.ubc.ca or call toll free 1-877-822-8598.

**Consent:** Your participation in this study is entirely voluntary and you may refuse to participate or withdraw from the study at any time. You also may postpone your decision to participate for 24 hours. You have the right to choose to not answer some or any of the questions. By clicking the "continue" button, you are indicating your consent to participate; hence, your signature is not required. The researchers encourage you to keep this information sheet for your records. Please feel free to ask the investigators any additional questions that you have about the study.

Ethics ID: H17-02929

- O I consent to participate in this study and will continue to the experiment.
- O I do not consent to participate in this study.

control group condition

## **UBC** Farm Markets



#### WHAT YOU'LL DO

Running from June to October, our lively Saturday markets require many helping hands. Market Crew members are in charge of setting up the market stands, selling our certified organic produce and generally running our markets throughout the growing season. Volunteers help out behind the scenes in our produce and flower area with our Market Crew.

#### **PROGRAM REWARDS**

Farmer's Market volunteers have the opportunity to bring cull vegetables and fruit home after each volunteer shift, access a 20% discount at our markets after 10 hours of volunteering, and access a free UBC Farm t-shirt after 20 hours.

#### WHAT VOLUNTEERS ARE SAYING

"It was so much fun talking to people from very different backgrounds and learning together!" - 2015 Farm Market Volunteer

How many hours on average would you like to volunteer at this program per week?



tangible condition

## **UBC Farm Markets**



#### WHAT YOU'LL DO

Running from June to October, our lively Saturday markets require many helping hands. Market Crew members are in charge of setting up the market stands, selling our certified organic produce and generally running our markets throughout the growing season. Volunteers help out behind the scenes in our produce and flower area with our Market Crew.

#### WHAT YOU'LL GET

- > 20% off discounts on farm produce after working for 10 hours
- > Free produce leftover after shift
- A UBC Farm T-shirt after working for 20 hours

#### WHAT VOLUNTEERS ARE SAYING

"It was so much fun talking to people from very different backgrounds and learning together!" - 2015 Farm Market Volunteer

How many hours on average would you like to volunteer at this program per week?



#### psychological condition

#### **UBC Farm Markets**



#### WHAT YOU'LL DO

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#### WHAT YOU'LL GET

- > 20% off discounts on farm produce after working for 10 hours
- > Free produce leftover after shift
- > A UBC Farm T-shirt after working for 20 hours

#### Additionally...

- Improved physical and mental well-being
- Reduced stress and depression
- Quality connections with other volunteers

#### WHAT VOLUNTEERS ARE SAYING

"It was so much fun talking to people from very different backgrounds and learning together!" - 2015 Farm Market Volunteer

How many hours on average would you like to volunteer at this program per week?



Demographic
How would you describe your gender?
O Male
O Female
O Non-binary
O Other
O Prefer not to answer
What is your age?
What is your most recent completed degree?
O High School Diploma
O Undergraduate Degree
O Graduate Degree
O Others
O Prefer not to answer
Are you currently a student?
O Yes
O No
O Prefer not to answer
What is your employment status?
O Part-time
O Full-time
O Not working
O Others
O Prefer not to answer
Do you struggle with food insecurity (i.e. not having enough money to buy food)?
O Yes

- O No
- $O\$  If you are not working, choose this option
- O Prefer not to answer

#### **Debrief Letter**

PSYC 421 Environmental Psychology Team Research Project:

The Effect of Salience on Willingness to Volunteer

#### The Research Question:

How do nudges that highlight the benefits of volunteer work promote engagement in the UBC farm within the UBC community members?

The independent variable: The use of salience nudges on volunteer program website.

#### Manipulation of the independent variable:

We highlighted the tangible or tangible plus psychological rewards for volunteering on the volunteer program website.

#### The three levels of the independent variable:

The control group, the group that highlights tangible rewards and the group that highlights tangible plus psychological rewards.

#### The dependent variable:

Students' willingness to volunteer at farms measure by the hours they are willing to volunteer.

#### **Operational Definition of dependent variable:**

Participants' response on the time that participants would want to work at the farm.

**Our hypothesis:** Using salience to highlight tangible and psychological rewards for volunteering would increase UBC community members' willingness to volunteer at farms compared to the controlled condition. Additionally, adding the psychological benefits to the tangible condition can further promote engagement.

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Team Members	Contribution
Minqi	Proposal writing, design of Qualtrics survey, data collection, making the presentation, final report
Sean	Proposal writing, design of Qualtrics survey, data collection, making the presentation, final report
Marisa	Proposal writing, design of Qualtrics survey, data collection, making the presentation, final report
Angelina	Proposal writing, design of Qualtrics survey, data collection, making the presentation, final report
Linda	Proposal writing, design of Qualtrics survey, data collection, making the presentation, data analysis, final report
Wenjing	Proposal writing, design of Qualtrics survey, data collection, making the presentation, data analysis, final report

Appendix D: Contribution of team members