

**Examining Personality Through Enrolment in
Sustainability-Related Courses and Faculty Membership**

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Executive Summary

Climate change is becoming an increasingly pressing issue around the world. Because of this, individuals and societies are becoming more interested in reducing human impacts through sustainability-focused education. Certain personality traits, associated with pro-environmental behaviours, are employed by psychologists which aim to foster sustainable behaviours. Openness and Agreeableness have been positively correlated with pro-environmental behaviours (Hirsch, 2010; Wuertz, 2015); inversely, Neuroticism has been negatively correlated (Milfont & Shibley, 2012). Recently, more sustainability-related courses (SRCs) have appeared. We examined students taking and not taking SRCs, their personality traits, and subjects of study. A survey was administered to students from the University of British Columbia (N=134). Statistical analysis compared UBC faculties: Land and Food Systems (LFS), Arts, and Science. Differences in SRC course enrolment between faculties were significant such that LFS students were more involved than Science students. Secondly, faculty and SRC enrolment compared to Big Five Trait variation reached significance regarding conscientiousness ($p = .017$); LFS displayed higher levels of conscientiousness. Overall, we conclude students enrolled in more SRCs were not significantly different than student enrolled in fewer. This suggests other factors affecting course enrolment may play larger roles (*e.g.* timetable fit and graduation requirements).

Examining Personality Through Enrolment in Sustainability-Related Courses and Faculty Membership

As the impacts of climate change become increasingly apparent around the world, environmental awareness has become a prevalent issue garnering much attention from

researchers. With this expanding awareness comes a plethora of sustainability-related courses (SRCs) accommodating societies greater desire to learn about sustainable-solutions and human impact reduction. Psychologists have previously employed personality traits associated with environmental concern to help facilitate pro-environmental behaviours: a connection between knowledge and action (Wuertz, 2015).

Within this paper we focus on The Big Five personality traits, which include Agreeableness, Openness to Experience, Conscientiousness, Extraversion, and Neuroticism. These have previously been used to understand the correlation between contextualized factors (*e.g.* Academic institution) and external contextualized factors, are correlated with environmentalism (Hirsch, 2010, Dietz et al., 2005). Openness has been found a significant predictor of pro-environmental concern and behaviours and Agreeableness correlated with pro-environmental behaviour (Wuertz, 2015). This was complemented by Hirsch (2010) finding Agreeableness and Openness to be associated with with environmental concern. Additionally, low Neuroticism has been associated with energy conservation behaviour (Milfont & Sibley, 2012).

We tested three hypotheses in order help understand the relationship between SRC enrollment and personality. Based on the aforementioned evidence, our first hypothesis predicted those enrolled in SRCs would score higher on measures of Openness and Agreeableness, and lower on Neuroticism. Secondly, as more SRC courses were listed within the Faculty of Arts, we predicted students within this faculty would report comparatively greater SRC enrolment (UBC Sustainability, 2016). Lastly, in accordance with Vedel's finding (2015) that Arts students score higher on Neuroticism and Openness, and lower on Conscientiousness, we predicted Arts students would score lower on Conscientiousness, replicating previous findings. Science students score higher in Neuroticism and Openness than Arts students (Sánchez-Ruiz et al., 2011, Veder, 2015). Due the unique, unexamined nature of Land and Food Systems (LFS), however, there are no predictions about LFS for this study. Previous research regarding LFS in relation to personality is limited, and we aim to extend prior research regarding faculty differences in personality traits.

Methods

Participants

The survey was disseminated to eligible participants via two means: outreach to peers through social media and to professors teaching SRCs. Participants were required to be currently enrolled in courses at the University of British Columbia. A total of 134 UBC undergraduate students participated in the study by completion of the online survey (24 male, 85 female, 25 unspecified). The age of participants in the sample population ranged from 17 to 34 years ($M=20.95$, $SD=2.19$). 61 participants were reportedly born in Canada, 15 in the U.S.A, 8 in China, and 50 were unspecified. There were 23 1st years, 20 2nd years 19 3rd years and 38 4th-years; 34 students were unspecified. With regards to our sample distribution by faculty, 60 students were in the Faculty of Land and Food Systems, 20 in the Faculty of Arts, 16 in the Faculty of Science; the remaining faculties had 5 or fewer in the sample and were therefore not included in subsequent analysis (*e.g.* Sauder School of Business, School of Kinesiology). Participants entered course codes for all courses they were enrolled in within the current term. These were then hand-sorted into three categories. The student distribution is as follows 35 students coursesloads contained no sustainability pillars, 47 were taking at

least one course with at least one pillar, and 29 students were taking at least one course with full SRC designation. Twenty-three students did not specify course enrolment.

Materials

Personality was assessed using a brief version of Big-Five personality inventory, known as the Ten-Item Personality Inventory (TIPI). The Big-Five quantifies personality as a constellation of five traits: Openness to Experience, Agreeableness, Conscientiousness, Extraversion, and Neuroticism. The TIPI is an extremely brief adaptation of this inventory, consisting of ten items. The participant rated the degree to which they see themselves as a particular quality, using a seven-point likert-type scale ranging from “Disagree Strongly” to “Agree Strongly”. These qualities include “reserved, quiet” and “disorganized, careless”. The TIPI displays an adequate degree of convergence with the Big-Five ($r = .77, p < .01$) and an adequate test-retest reliability (mean $r = .72$, across six weeks) (Gosling, Rentfrow, & Swann, 2003). Additionally, “the TIPI displayed patterns of [external] correlations that were virtually identical to those of the BFI” (p. 523, Gosling, Rentfrow, & Swann, 2003).

The course enrollment portion of the survey asked individuals to enter the course codes of the classes they were currently enrolled in (*e.g.* BIOL 201). The UBC Sustainability website was the framework employed to determine whether a course was considered sustainability-focused (UBC Sustainability, 2016). The three pillars, environment, society, and economy + technology, of SRCs at UBC are categorized on their website with “sustainability-focused” as the core component (UBC Sustainability, 2016). These pillars were used to group participants based on their current enrollment into (1) no SRCs, (2) at least one SRC with one to three pillars, but not a sustainability focus or (3) at least one SRC with the sustainability-focus. This was done by hand by typing each course into the search engine and giving the individual a the number code from 1 to 3 based on the above classification. The survey included an evaluation of upbringing and childhood factors, devised to assess the influence of early life experience on course enrolment. This portion included questions regarding importance of environmentalism, frequency of exposure to natural spaces, and number of green spaces in close proximity to house (Appendix A). Demographics were completed last and included age, sex, country of residence, country of birth, religious affiliation, degree of religiosity, and UBC faculty. Enrollment in SRCs, as defined above, and UBC faculty membership served as independent variables in the two analyses. The dependent variables were the scores on the “Big Five” personality traits (*i.e.* Extraversion, Agreeableness, Openness to Experience, Conscientiousness, and Neuroticism). A one-way MANOVA was then performed to determine if personality constellations varied significantly as a function of enrollment and faculty. Post-hoc testing was ultimately used to elucidate these differences.

Procedure

Participants were asked to fill out a short survey, approximately 5-7 minutes in duration, by either a member of our research team or a UBC professor. As an incentive, individuals were told that upon completion of the survey they had to option to enter to win a \$20 UBC Bookstore giftcard. Participants were instructed to follow a link and prompted to complete questions including how individuals viewed themselves regarding personality traits, current term course enrolment, background questions regarding upbringing and presence of

nature, followed by general demographics. On the last page they were asked to email the address provided to be entered in the incentive draw.

Results

Because age is known to be related to personality (Srivastava, John, Gosling & Potter 2003,) the present study conducted, first, an one-way ANOVAs to determine if there were any significant differences between faculties on the demographic variable of age and, second, an ANOVA to test if SRC group conditions varied by age. There were no significant age differences found between the faculty groups $F(2, 93) = 2.24, p = .11$ or SRC conditions $F(2, 93) = 1.81, p = .17$.

First, we tested significant differences in SRC involvement by faculty (LFS>Art>Science) by the number of sustainability courses. Only the faculties of LFS ($n = 58$), Arts ($n = 19$) and Science ($n = 16$) were used in this analysis. All UBC faculties with less than five survey responses were not included in this analysis. Due to the ordinal nature of the dependant variable (sustainability course selection) a Kriskal-Wallis H test was performed. This analysis demonstrated that there was a statistically significant difference in sustainability course selection between faculties, $\chi^2(2) = 21.21, p < .01$, with a mean rank sustainability course score of 42.5 for Arts, 55.15 for LFS, and 22.8 for Science. Follow-up tests were conducted to evaluate pairwise differences among the three groups, controlling for Type I error across tests by using the Bonferroni approach. The results of these tests indicated a significant difference between the LFS group and the Science group, and contrasting our hypothesis, SRC involvement was greater for the LFS group than the Science group.

Second, we tested if any of the faculties or course selection groups varied significantly on any of the big five constellations. The same sample was used (all UBC faculties with less than five responses discarded from analysis). A two way MANOVA demonstrated that there was a statistically significant difference within faculties levels of trait conscientiousness $F(2, 93) = 2.27, p = .017$; Wilks' $\Lambda = .770$. Post hoc Tukey tests revealed that the LFS sample group was significantly higher on conscientiousness than the Arts sample group, $p = .01$. The remaining variables and interaction effects did not reach statistical significance (See Appendix C).

Discussion

This research project attempted to better understand students SRC enrolment, or lack thereof, through the lens of personality and faculty membership. It also aimed to extend previous findings about the links between environmentally-minded behaviours and the Agreeableness, Openness, and Neuroticism dimensions of the Big-Five personality system.

Partial support was found for our prediction that Big-Five personality traits will vary between faculties, such that the Faculty of LFS will show different personality patterns than the other faculties. Specifically, our results suggest that LFS UBC students are higher in terms of conscientiousness. This finding fills a gap in the past research regarding faculty differences in the Big Five by elucidating personality differences and similarities between the Faculty of LFS and other major faculties.

Prior research has demonstrated that advertisements can be tailored to an individual's personality. A conscientious individual will be more likely to respond to an advertisement if it features components relevant to their personality (Hirsch et al. 2012). It would be useful, therefore, to have SRC-related advertisements that tap into conscientious motivational

concerns posted in areas frequented by LFS students. For example, conscientious individuals place a relatively high value on achievement, order, and efficiency (Roberts, Chernyshenko, Stark, & Goldberg, 2005); promotional materials may be subtly tailored to these concerns to increase effectiveness. Moreover, one study found that ads which emphasized goal pursuit and efficiency were especially effective on individuals high in conscientiousness (Hirsh, Kang, & Bodenhausen, 2012), emphasizing the validity of tailoring advertising campaigns towards conscientious personalities.

Surprisingly, there were no significant differences found between the faculty of Arts and the faculty of Science. This suggests that students of these two faculties are similar in personality, a contradiction to prior research. For this reason, prior research suggesting that Science students tend to score higher on the traits of Openness and Neuroticism may not be generalizable to the UBC student body. Because of the similarity in these groups, advertisements geared towards UBC students should not plan marketing strategies with personality in mind for students of these faculties.

Additionally, in contrast to our predictions and previous findings, positively linking Agreeableness and Openness to pro-environmental behaviours and negatively linking Neuroticism these behaviours, the present study found that students enrolled in a higher level of SRCs were not different than either of the other two SRC conditions. This finding suggests that other mechanisms may be at play, having a larger impact on the decision whether a student decides to enroll in SRCs. These may include scheduling, word of mouth, professor quality and difficulty, class size, degree requirements, and perceived workload. Moreover, SRC participation is not in itself necessarily a pro-environmental minded behaviour. This is shown by the fact many SRCs require no environmental action to be taken at the student level, but rather encourage an understanding of environmentalism and sustainability. This ultimately may be motivated by non-environmental minded intentions (*e.g.* applications to human social psychology). Future studies should investigate different motivations for SRC involvement (*e.g.* scheduling, course reputation, difficulty).

Lastly, we failed to find support for our hypothesis that SRC enrolment would vary between faculties such that Arts students would be the most involved, followed by Sciences students, and LFS students being the least involved. The present study found individuals the Faculty of LFS had a significantly higher involvement in SRC's compared to students in the Faculty of Science. No significant differences were found between the LFS and Arts faculties or the Science and Arts faculties. As this hypothesis was built upon the fact that amount of SRC courses available to students within a faculty played an integral role in SRC enrolment, however, these findings may suggest that SRC enrolment within faculty is less integral to SRC involvement than initially expected. Other factors at play may be more influential. When comparing the content of faculties, LFS better resembles the content of SRCs. In-fact, the LFS faculty explicitly describes itself as inherently sustainable (Appendix E). Although not in line with initial predictions, this finding has important implications, specifically highlighting the fact that science students are under involved in SRCs and should be targeted via advertising to encourage SRC involvement.

It should be noted that the present study was stipend by several limitations. First, small sample sizes may have rendered the analysis underpowered, making group differences of small effect sizes undetectable. For this reason, the present negative results should be taken

with caution. Future researchers should aim replicate the present study with more power to instill further confidence in the above results and potentially uncover more subtle associations. Second, the method of data collection may have also introduced bias into the results. Reaching out to our own networks was potentially biased - even though we are within different faculties, we are all taking the same psychology course and the type of people we each are, are likely affect the sort of networks we surround ourselves with. In addition, instructors comfortable sharing our survey with their classes may have differed systematically. Conceivably, those with smaller, high-level classes may have felt closer to their students, and were thus more likely to share our link. Finally, due to time constraints on data collection and compensation, participants completed the TIPI, which does not correlate perfectly with the Big-Five, thereby further limiting our potential to replicate effects. Future research should aim to remedy these issues.

Recommendations

The findings of this study suggest a few plans of action. Advertisements aimed at LFS students should focus on achievement and efficiency. In the language of marketing, these materials should be informational rather than transformational (Cutler, Thomas, & Rao, 2000). As such they should relay concrete information and emphasize the goals that one can achieve with a sustainability-minded education. The use of outcome data and specific details may be useful in this regard. Advertisements aimed at students lower in conscientiousness, however, may benefit from a transformational approach, therefore attempting to relay an experience or emotion. The use of imagery or student testimonials may best serve this goal.

Seeing as personality did not vary as a function of SRC enrolment, other factors must be playing more central roles in explaining variance. Future research should aim to understand the roles of pragmatic, motivational, and institutional factors; scheduling, perceived difficulty, and degree requirements may play larger roles than personality.

Our elucidation of the difference between LFS and Science in SRC involvement is imperative for UBC SRC organizers that hope to encourage students of all faculties to participate in SRCs this may be the case because, compared to the science faculty, the content of LFS better resembles the content of SRCs.

References

- Cutler, B. D., Thomas, E. G., & Rao, S. R. (2000). Informational/transformational advertising: Differences in usage across media types, product categories, and national cultures. *Journal of International Consumer Marketing*, 12(3), 69-83.
- Gosling, S. D., Rentfrow, P. J., & Swann, W. B. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in personality*, 37(6), 504-528.
- Hirsh, J. B. (2010). Personality and environmental concern. *Journal of Environmental Psychology*, 30(2), 245-248.

Hirsh, J. B., Kang, S. K., & Bodenhausen, G. V. (2012). Personalized persuasion tailoring persuasive appeals to recipients' personality traits. *Psychological science*, 23(6), 578-581.

Milfont, T. L., & Sibley, C. G. (2012). The big five personality traits and environmental engagement: Associations at the individual and societal level. *Journal of Environmental Psychology*, 32(2), 187-195.

<http://dx.doi.org/10.1016/j.jenvp.2011.12.006>.

Roberts, B. W., Chernyshenko, O. S., Stark, S., & Goldberg, L. R. (2005). The structure of conscientiousness: An empirical investigation based on seven major personality questionnaires. *Personnel Psychology*, 58, 103–139

Sánchez-Ruiz, M. J., Hernández-Torrano, D., Pérez-González, J. C., Batey, M., & Petrides, K. V. (2011). The relationship between trait emotional intelligence and creativity across subject domains. *Motivation and Emotion*, 35(4), 461-473.

Srivastava, S., John, O. P., Gosling, S. D., & Potter, J. (2003). Development of personality in early and middle adulthood: Set like plaster or persistent change?. *Journal of personality and social psychology*, 84(5), 1041.

UBC Sustainability. (2016). *Sustainability-related courses at UBC: A search engine to classify levels of sustainability in UBC courses*. Retrieved from <https://sustain.ubc.ca/courses-teaching/courses>.

Wuertz, T. (2014). Personality traits associated with environmental concern (Doctoral dissertation). Available from ProQuest Dissertations & Theses Full Text database. (UMI No. 3684669)

Dietz, T., Fitzgerald, A., and Shwom, R. (2005). Environmental values. *Annual Review of Environment and Resources*. 30, 335-372.

[doi:10.1146/annurev.energy.30.050504.144444](https://doi.org/10.1146/annurev.energy.30.050504.144444).

Vedel, A. (2016). Big Five personality group differences across academic majors: A systematic review. *Personality and individual differences*, 92, 1-10.

Appendix A Survey as Administered

[pg 1] Here are a number of personality traits that may or may not apply to you. Please use the scale below as a guide and indicate the extent to which *you agree or disagree with that statement*. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately	Agree strongly
1	2	3	4	5	6	7

I see myself as:

1. Extraverted, enthusiastic.
 - 1 - Disagree strongly
 - 2 - Disagree moderately
 - 3 - Disagree a little
 - 4 - Neither agree nor disagree
 - 5 - Agree a little
 - 6 - Agree moderately
 - 7 - Agree strongly
- I do not wish to answer

2. Critical, quarrelsome.

- 1 - Disagree strongly
- 2 - Disagree moderately
- 3 - Disagree a little
- 4 - Neither agree nor disagree
- 5 - Agree a little
- 6 - Agree moderately
- 7 - Agree strongly
- I do not wish to answer

3. Dependable, self-disciplined.

- 1 - Disagree strongly
- 2 - Disagree moderately
- 3 - Disagree a little
- 4 - Neither agree nor disagree
- 5 - Agree a little
- 6 - Agree moderately
- 7 - Agree strongly
- I do not wish to answer

4. Anxious, easily upset.

- 1 - Disagree strongly
- 2 - Disagree moderately
- 3 - Disagree a little
- 4 - Neither agree nor disagree
- 5 - Agree a little
- 6 - Agree moderately
- 7 - Agree strongly
- I do not wish to answer

5. Open to new experiences, complex

- 1 - Disagree strongly
- 2 - Disagree moderately
- 3 - Disagree a little
- 4 - Neither agree nor disagree
- 5 - Agree a little
- 6 - Agree moderately
- 7 - Agree strongly
- I do not wish to answer

6. Reserved, quiet.

- 1 - Disagree strongly
- 2 - Disagree moderately
- 3 - Disagree a little
- 4 - Neither agree nor disagree
- 5 - Agree a little
- 6 - Agree moderately
- 7 - Agree strongly

I do not wish to answer

7. Sympathetic, warm.

- 1 - Disagree strongly
- 2 - Disagree moderately
- 3 - Disagree a little
- 4 - Neither agree nor disagree
- 5 - Agree a little
- 6 - Agree moderately
- 7 - Agree strongly

I do not wish to answer

8. Disorganized, Careless.

- 1 - Disagree strongly
- 2 - Disagree moderately
- 3 - Disagree a little
- 4 - Neither agree nor disagree
- 5 - Agree a little
- 6 - Agree moderately
- 7 - Agree strongly

I do not wish to answer

9. Calm, emotionally stable.

- 1 - Disagree strongly
- 2 - Disagree moderately
- 3 - Disagree a little
- 4 - Neither agree nor disagree
- 5 - Agree a little
- 6 - Agree moderately
- 7 - Agree strongly

I do not wish to answer

10. Conventional, uncreative.

- 1 - Disagree strongly
- 2 - Disagree moderately
- 3 - Disagree a little
- 4 - Neither agree nor disagree
- 5 - Agree a little
- 6 - Agree moderately
- 7 - Agree strongly
- I do not wish to answer

[Pg 2] Please enter in the boxes below the courses that you are currently enrolled in for this term at UBC. Please be sure to include both the department code and course number in your response (e.g. PSYC 321.)

1. _____
2. _____

3. _____
4. _____
5. _____
6. _____
7. _____

How many semesters have you completed at UBC?

- Still in my first
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11+
- I do not wish to answer

What year standing are you at UBC?

- First
- Second
- Third
- Fourth
- I do not wish to answer

[Pg 3] How important was environmentalism (eg. conserving water, reducing electricity use, consistently recycling, not littering, valuing protection of natural spaces) in your household(s) growing up?

- 1 – Very important
- 2
- 3
- 4
- 5 - Somewhat important
- 6
- 7
- 8
- 9
- 10 - Not at all important
- I do not wish to answer

How often were you exposed to natural spaces (eg. forests, beaches, rivers) when you were growing up (ie. hiking, forest games, swimming, etc.)?

- Daily

- 4-6 times per week
- 2-3 times per week
- Weekly
- Once every 2 weeks
- Monthly
- Less than once per month
- Less than once per year
- Not at all
- I do not wish to answer

How many green spaces (eg. forests, rivers, oceans, parks, etc.) were situated near to (2 km) your household(s) growing up?

- One
- Two
- Three
- Four
- Five
- Six
- Seven or more
- I do not wish to answer

[Pg 4] Please answer these questions about your demographics. This study should take no more than 5 minutes and will ask you questions regarding your personality and course enrollment.

Age, please enter 999 if you do not wish to answer

Sex

- male,
- female,
- Other, please specify... _____
- I do not wish to answer

Country of residence, please enter 999 if you do not wish to answer

Country of birth, please enter 999 if you do not wish to answer

What religion do you identify most with?

- Christianity
- Judaism
- Islam
- Buddhism
- Hinduism
- Sikhism
- Other, please specify... _____
- I do not wish to answer

How religious are you?

- 0 – L Religiosity/Not Religious
- 1
- 2
- 3
- 4
- 5
- 6 - High Religiosity/Strongly Religious
- I do not wish to answer

What is your political orientation?

- 1 – Very liberal
- 2
- 3
- 4 - Neutral
- 5
- 6
- 7 - Very Conservative
- I do not wish to answer

UBC faculty

- Faculty of Applied Science
- School of Architecture and Landscape Architecture
- Faculty of Applied Science
- School of Architecture and Landscape Architecture
- Faculty of Arts
- School of Audiology and Speech Sciences
- Sauder School of Business
- School of Community and Regional Planning
- Continuing Studies
- Faculty of Dentistry
- Faculty of Education
- Faculty of Forestry
- Graduate and Postdoctoral Studies
- School of Journalism
- School of Kinesiology
- Faculty of Land and Food Systems
- Peter A. Allard School of Law
- School of Library, Archival and Information Studies
- Faculty of Medicine
- School of Music
- School of Nursing
- Faculty of Pharmaceutical Sciences
- School of Population and Public Health
- Faculty of Science

- School of Social Work
- UBC Vantage College
- Vancouver School of Economics
- I do not wish to answer

UBC Department, please enter 999 if you do not wish to answer

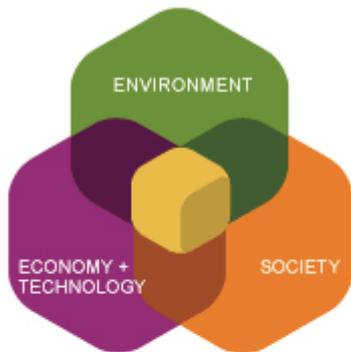
THANK YOU FOR YOUR PARTICIPATION!

If you would like to be entered into the raffle for a \$20 UBC bookstore gift card as a form of compensation for your participation, please e-mail the password MOSSYFIBERS to the e-mail: **psyc.321.2017@gmail.com**.

[Back] [Submit]

Appendix B

Diagram of Sustainability Pillar Model Used to Operationalize Enrolment in SRCs

**COURSE LEGEND**

- Environment
- Society
- Economy + Technology
- Sustainability Focused

Retrieved from: <https://sustain.ubc.ca/courses-teaching/courses>

Appendix C

Results from the two-way MANOVA of differences within Faculty and SRC involvement by the BIG-5 personality traits.

<i>p</i>	F	MS	df	SS	Conscientiousness
.00	7.61	40.9	2	81.80	Faculty
.42	.878	4.72	2	9.43	SRC
.10	2.11	11.35	3	34.06	Interaction
		5.38	85	457.14	Within
			93	11427	Total
<i>p</i>	F	MS	df	SS	Agreeableness
.580	0.548	5.17	2	3.555	Faculty
.293	1.247	5.72	2	11.45	SRC
.294	1.26	5.77	3	17.32	interaction
		4.6	85	390.24	Within
			93	9486	Total
<i>p</i>	F	MS	df	SS	Neuroticism
.21	1.62	8.68	2	17.37	Faculty
.10	2.34	12.56	2	25.13	SRC
.10	2.18	11.73	3	35.19	interaction
		5.37	85	456.72	Within
			93	6523	Total

<i>p</i>	F	MS	df	SS	Extraversion
.58	0.55	5.17	2	10.33	Faculty
.72	0.33	3.07	2	6.14	SRC
.78	0.36	3.43	3	10.29	interaction
		9.42	85	800.61	Within
			93	6728	Total

<i>p</i>	F	MS	df	SS	Openness to experience
.43	0.85	3.53	2	7.06	Faculty
.65	0.44	1.83	2	3.65	SRC
.22	1.51	6.27	3	18.81	interaction
		4.16	85	353.50	Within
			92	10424	Total

Appendix E Description of LFS

“The core curriculum of LFS undergraduate programs is centred on three interconnected pillars: Land, Food and Community. These concepts, and their relationship to one another, form the basis of our core undergraduate series: LFS 100, LFS 250, LFS 350 and LFS 450. Through these courses, LFS students from all disciplines work together to apply a systems-based approach in order to find solutions to some of the biggest challenges facing our world today: our relationship to the land (including the animals that also call it home), the environmental and economic factors affecting its use, the food we produce, our relationship to food as a culture, the impacts of land use and dietary choices on our nutritional health, the safety and quality of the food systems we create, and the sustainability of all of these systems for future generations. We are a Faculty of superheroes. What will your superpower be?”

Retrieved from: <http://www.landfood.ubc.ca/academics/undergraduate/prospective-students/>