UNIVERSITY OF
TORONTO
SCARBOROUGH

Green Course sustainable initiative in UTSC: Analysis of Paper Consumption Awareness

EESC34H3

Instructor: Ana Maria Martinez

Jiayue Yang; Yunzhen Jiang; Jingcao She; Jiayue Lin

2020.4

Table of Contents

Abstract

Universities play a pivotal and unique role in helping to address sustainability issues. Several universities have developed initiatives related to addressing sustainability problems. The Green Courses is one of these significant educational sustainability initiatives in the UTSC campus. It aims to reduce paper consumption and create a greener UTSC through resourceful practices such as double-sided, single spacing, and online submissions. Our project is studying at Green Courses. The project wanted to explore the awareness of Green Courses and the consumption of paper by comparing it with other universities in Canada. The method we used to achieve data was through sending surveys and getting responses from students and instructors. At the same time, we collected and analyzed other universities' relative sustainability initiatives from their websites and made comparisons about their effectiveness. The final objectives of our project are going to do some research on how well students and faculty members know Green Courses, and also come up with some recommendations to raise their awareness about sustainability for further conservation of resources.

Keywords

Sustainability awareness; Paper Consumption; Survey; Comparison; Green Courses

Introduction

Description

Sustainability as a popular topic has been discussed and studied for many decades. It aims to bridge the balance between society, economy, and the environment (UTSC Green Guide, n.d.). In this context, universities play a pivotal and unique role in helping to address sustainability issues. Since many students or staff in university may not or lack relevant knowledge about how to achieve sustainability. The University of Toronto at Scarborough sustainability office has initiatives covering most of the branches under the theme of sustainability to create an environmental lifestyle to offer students and education professionals the opportunity for a better understanding of educational systems across the campus.

Scope

The fifteen initiatives directly correspond to the different positive goals in Sustainable Development Goals (SDGs). We are going to study in one specific initiative --- 'Green Courses,' which focuses on the use of paper in the UTSC

campus. According to the UTSC Green Courses website (n.d.), "UTSC uses an average of 12000 reams or 6,000,000 sheets of paper per year with even more paper bought by individual departments; however, a great portion of paper usage comes from the student body since they regularly print course-related materials." Since paper usage reflects a bunch of sustainable problems such as waste and consumption studies is necessary. This initiative is micro-sustainability, which is highly straightforward to connect to faculty, staff, and students. Furthermore, the initiative is most strictly related to the topic of education and awareness, as many instructors and students from high educational institutions are involved in this process. The project group is going to do some research on it and come up with several comments and suggestions to raise students' and faculty's attention to sustainability.

Objectives

Our specific project objectives to address this issue are the following:

1. To screen out a specific aspect --- 'Green Courses,' finding out how well people are involved in this initiative;
2. Studying in 'what Green Courses did,' 'which action the initiative was taken,' 'how much influence it has on sustainability' and 'it did well or not';
3. Surveying students or professors, such as questionnaires, to find how many of them learned about this initiative;
4. Using the information above, carry out a general project proposal and decide research interests;
5. Researching and comparing with relevant other universities' sustainability initiatives in Canada, finding out the contributions and shortcomings from these universities in the paper-reduction field.'
6. Evaluating this initiative and exploring the potential of Green Courses for future development.

Background Analysis

To research the implementation of UTSC Green Courses, evaluate its effects, and make suggestions to promote the environmental consciousness by reducing paper usage, the waste reduction and relevant initiatives by various educational institutions across and not limited to Canada were analyzed. The findings will not only motivate faculty members to participate, increasing their awareness, and having a civilizing influence on students as the courses and required materials have direct impacts on their learning.

Firstly, the discussion about waste reduction is mainly on Organic Waste, Containers, and Mixed Papers, and the initiative of Green course aims to reduce paper waste[1], which was 15.29 kg within just 24 hours during the UTSC 2018 Waste Audition, and 0.64 kg of it went to landfill, as knowledge is primarily and traditionally imparted through the medium of paper (Waste Audit Canada, Feb 13th, 2018).

Currently, to be recognized as a Green Course, the faculty and staff will be asked to do a self-assessment which suggests 1) post-lecture materials online; 2) post handouts online if possible; 3) submit, mark, and return electronically; 4) encourage students to print double-sided if paper copies are necessary; and 5) have course required materials available online if possible, otherwise have them in course reserves. This initiative reflects the United Nations Sustainable Development Goal of responsible consumption and production, climate action, and life on land. (UTSC sustainability office, n.d.).

Green Courses are not put forward clearly as a sustainability initiative in most universities and colleges, which means 'Green Course' awareness may be absent from students in other universities as well. However, those ideas of encouraging educators and students to use less paper are mentioned in their sustainability guidelines as well. Also, Green Course is more or less in practice as some professors in other institutions avoid using paper on their initiative, and "course reserve" is typical to find in basically every educational institution.

Even though Green Courses are recognized in UTSC, sometimes staff and students showed no preference for Green courses because they were not aware of this initiative as an act of micro-sustainability; there are a lot more courses, not Green Course. From the educators' perspective, they may worry about the effectiveness of teaching and efficiency of grading after adjusting to Green Course. For students, it could be easier to follow the class with a physical handout. Therefore, it is essential to enhance communication with them and resolve their concerns before trying to convince them to change behaviors.

To be more instructive and influential, UTSC may raise a campaign emphasizing educational and awareness components to convey the initiative and reasons behind it to the campus community, which Green Course lecturers should also convey to the class. UTSC does not aim to discard hard copies as required materials but instead aim to educate and increase awareness of the benefits and barriers of printing out paper.

---

*1. Ontario Regulation 103/94, requires educational institutions to implement a Source Separation Program for the following mandatory materials: Paper

Methodology

Survey

Our method to get data is via sending surveys to students and instructors in electronic form on Google surveys, and also collecting feedback from different groups of people in UTSC. The proposal of surveying is to find out the general awareness of the initiative on campus and people's concerns about green courses. Survey methodology selects students and instructors as samples and carries out inferences that depend strongly on survey questions. Therefore, survey questions become significantly important. Sample survey questions would be as following:

7. Who are you?
8. How well do you know about the Green Courses?
9. If you are a student, have you attended the Green Courses?
10. If you are an instructor, have you held the Green Courses?
11. As a student, what is the main advantage of taking a Green Course?
12. As a student, what is the main disadvantage of taking a Green Course?
13. As an instructor, what is the main advantage of giving a Green Course?
14. As an instructor, what is the main disadvantage of giving a Green Course?
15. For instructors, if you are already giving a green course, do you feel there is a substantive necessity of recertifying in the next year?
16. In your opinion, which one benefits more in university studying, with or without paper?
17. Do you have any concerns about the Green Courses? Let us know: _____

Survey questions mainly focus on Green Course involvement and relative opinions of students and instructors. The links of the survey were sent to students through group chats on Facebook, Wechat and other social media platforms, to instructors through emails as well. The expected responses are 100 (Alick et al, 2017). During the 1 month period, 60 responses were collected. The collected results were analyzed using Excel and visualized in bar charts.

Comparison

The original plan for other methods includes gathering data from the UTSC sustainability website like annual paper consumption on campus and annual course involvement. However, the collected data is incomplete and not highly correlated with the research orientation. The connections and interviews of staff of initiative, which might add supplementary data about paper consumption on campus and detailed information about the operation of Green Courses, were also canceled due to the influence of COVID-19. To solve the unexpected problems, a comparison with other educational institutions. The waste reduction and sustainability initiatives that

are relevant to educational purposes practiced in various educational institutions across and not limited to Ontario were analyzed. Information about sustainability projects like the Green Courses program was collected from websites or sustainable reports of the University of Toronto Scarborough, University of Toronto St.George, University of Waterloo, McMaster, Humber College, and Western University. The ranking of Sustainability Tracking, Assessment & Rating System (STARS) of some institutions were also considered. By comparison, UTSC's efforts and future possibilities in raising awareness of sustainability through education in various forms were analyzed from another perspective.

Results

Survey

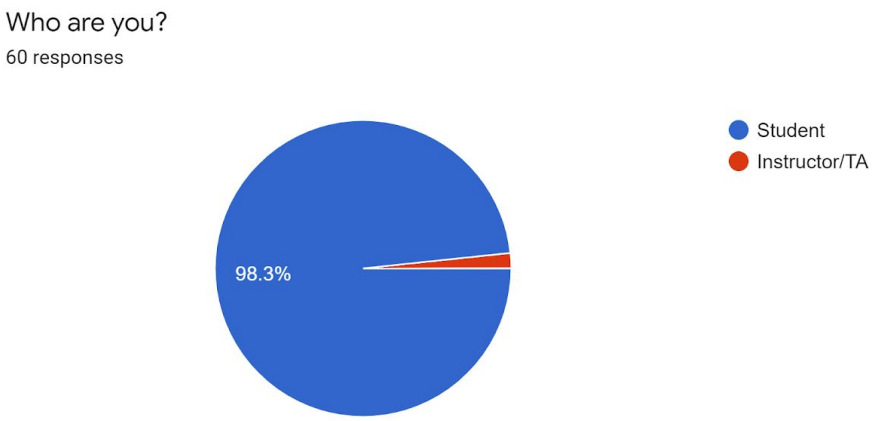

Figure 1: Survey Results for Question 1

According to the results for question 1(Figure 1), the survey sample size was 60. The results indicated that 59 responses were written by students and one was completed by an instructor or TA.

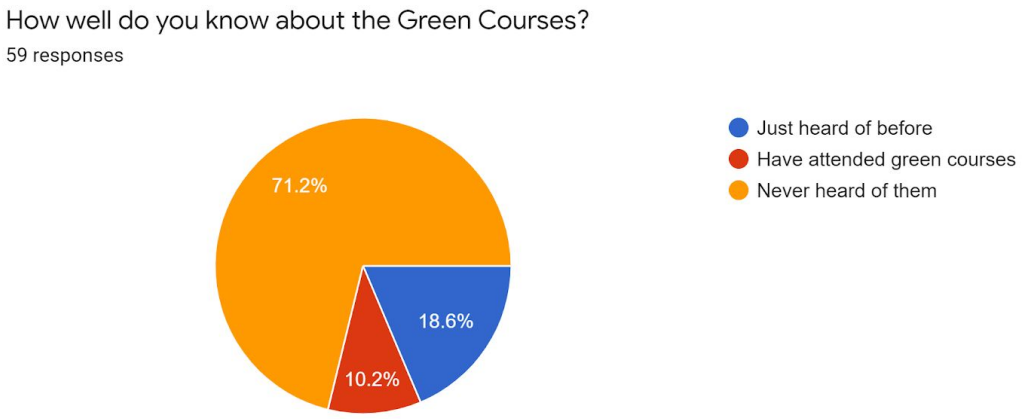

Figure 2: Survey Results for Question 2 for students

The results for question 2 (Figure 2) indicated that up to 71.2 percent of student respondents have never heard of the Green Courses initiative. The other 18.6 percent of respondents only heard of the initiative but have not attended the initiative. The remaining 10.2 percent of respondents indicated that they had attended the Green Courses initiative.

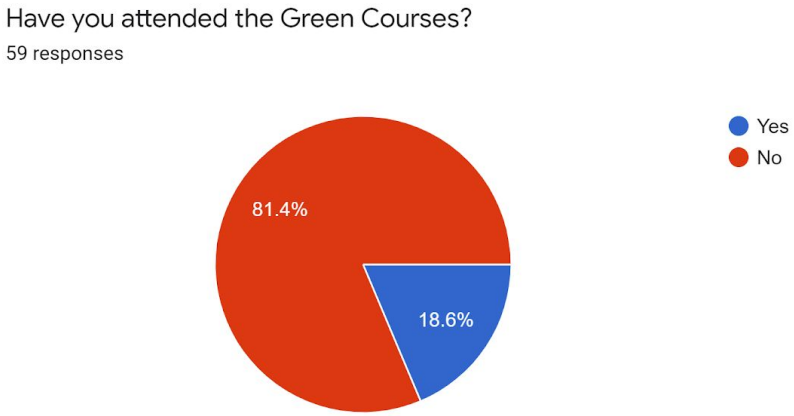

Figure 3: Survey Results for Question 3 for students

The results for question 3 (Figure 3) indicated that 81.4 percent of student respondents had not attended the Green Courses initiative. The remaining 18.6 percent of respondents indicated that they had attended the Green Courses initiative.

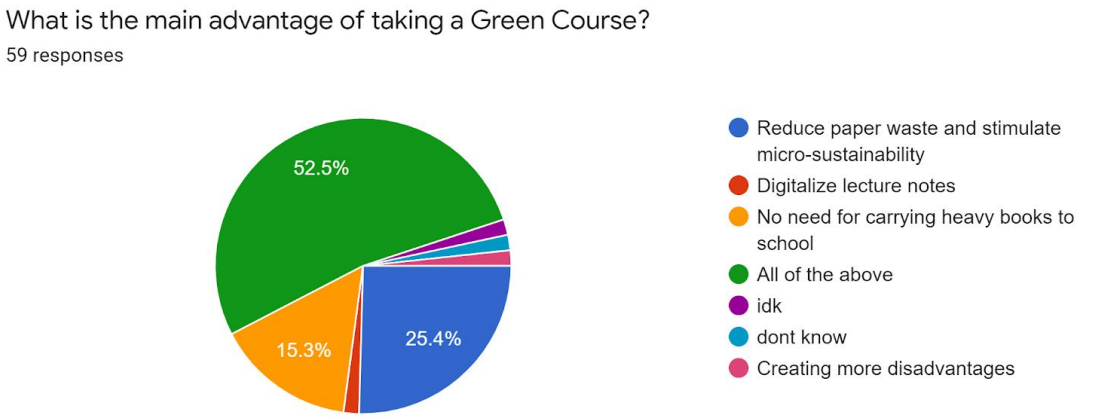

Figure 4: Survey Results for Question 4 for students

The results for question 4 (Figure 4) show various advantages of taking a Green Course acknowledged by student respondents. 52.5 percent of respondents indicated that reducing paper waste and stimulating micro-sustainability, digitalizing lecture notes, not carrying heavy books to school were all main advantages of taking a Green Course. 25.4 percent and 15.3 percent of respondents indicated that the main advantage of taking a Green Course was “reducing paper waste and stimulating micro-sustainability” and “not carrying heavy books to school”, respectively.

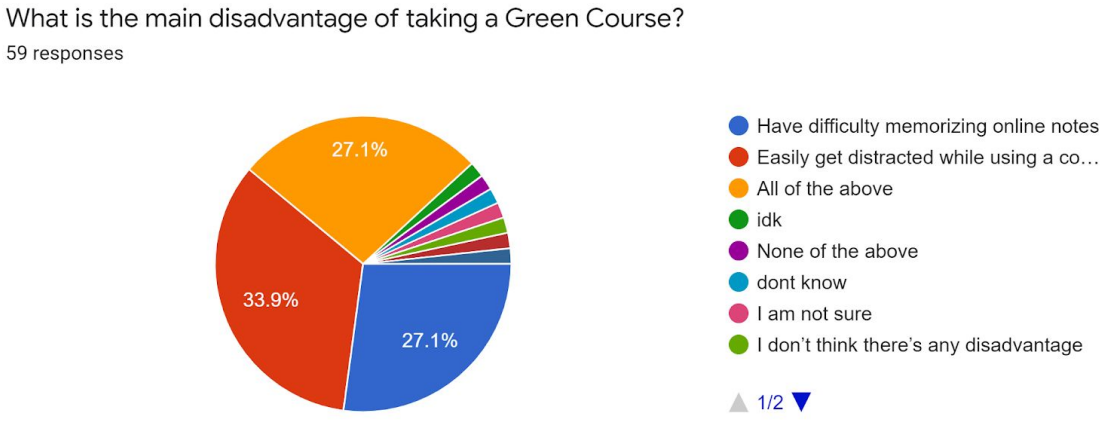

Figure 5: Survey Results for Question 5 for students

The results for question 5 (Figure 5) show various disadvantages of taking a Green Course acknowledged by student respondents. 27.1 percent of respondents indicated that having difficulty memorizing online notes and easily getting distracted while using a computer were all main disadvantages of taking a Green Course. 33.9

percent and 27.1 percent of respondents indicated that the main disadvantage of taking a Green Course was “easily getting distracted while using a computer” and “having difficulty memorizing online notes”, respectively. Additional comments included the following:

- “I don’t think there is any disadvantage”
- “extensive use of eye sights for digital products”

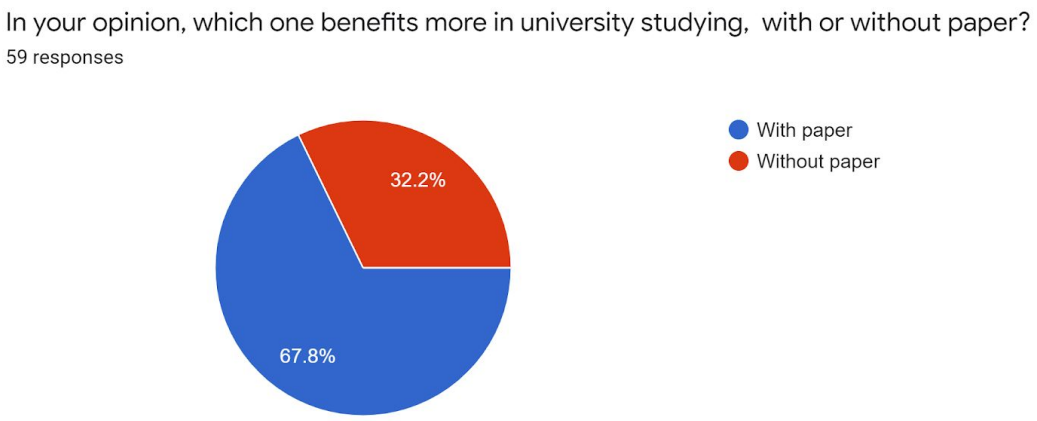

Figure 6: Survey Results for Question 6 for students

The results for question 6 (Figure 6) indicated that 67.8 percent of student respondents thought studying with paper benefits more in university. The remaining 32.2 percent of respondents indicated that studying without paper benefits more in university.

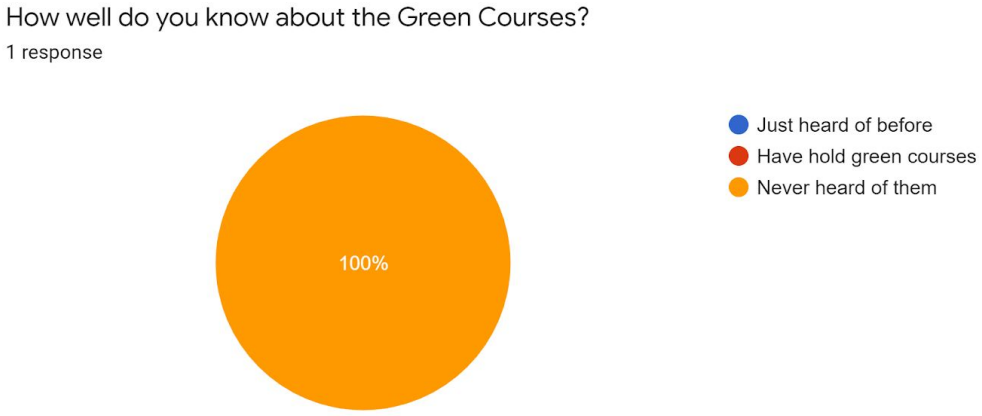

Figure 7: Survey Results for Question 2 for instructors and TAs

The results for question 2 for instructors and TAs (Figure 7) indicated that the only instructor/TA respondent had never heard of the Green Courses initiative.

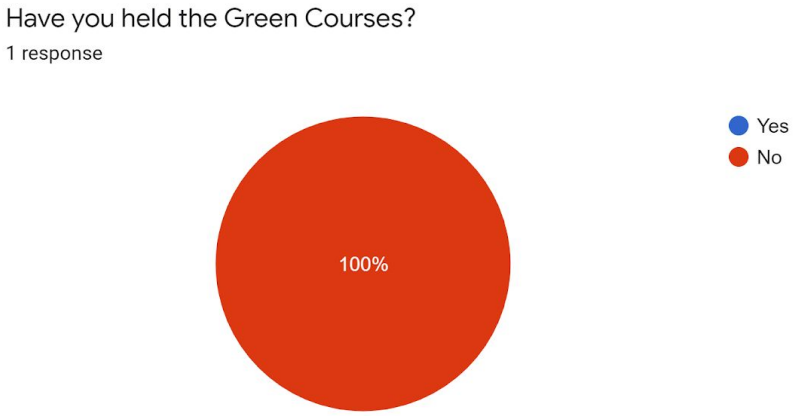

Figure 8: Survey Results for Question 3 for instructors and TAs

The results for question 3 for instructors and TAs (Figure 8) indicated that the only instructor/TA respondent had not held any Green Course.

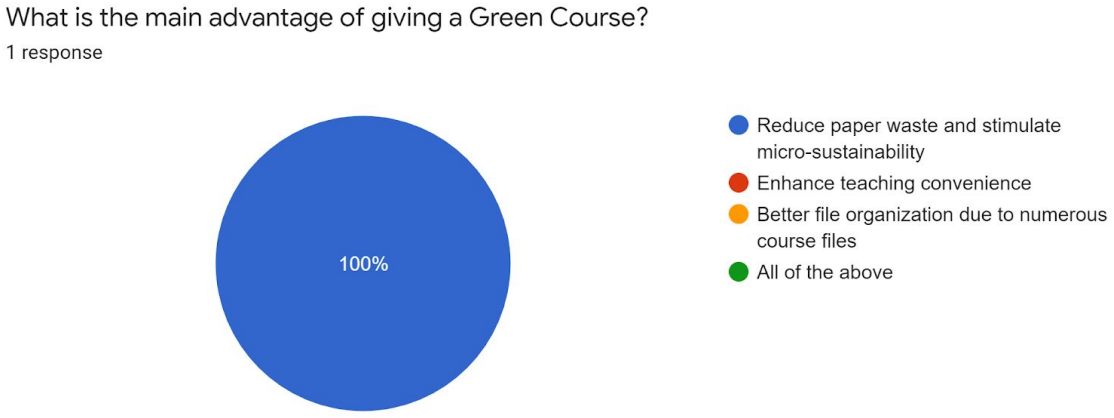

Figure 9: Survey Results for Question 4 for instructors and TAs

The results for question 4 (Figure 9) show various advantages of taking a Green Course acknowledged by instructor/TA respondents. The instructor/TA respondent indicated that reducing paper waste and stimulating micro-sustainability was the main advantage of giving a Green Course.

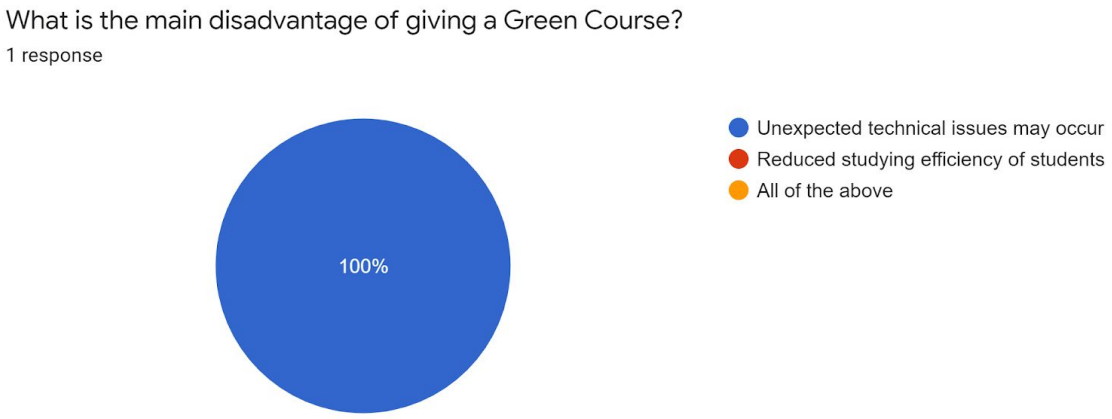

Figure 10: Survey Results for Question 5 for instructors and TAs

The results for question 5 (Figure 10) show various disadvantages of taking a Green Course acknowledged by instructor/TA respondents. The instructor/TA respondent indicated that the occurrence of unexpected technical issues was the main disadvantage of giving a Green Course.

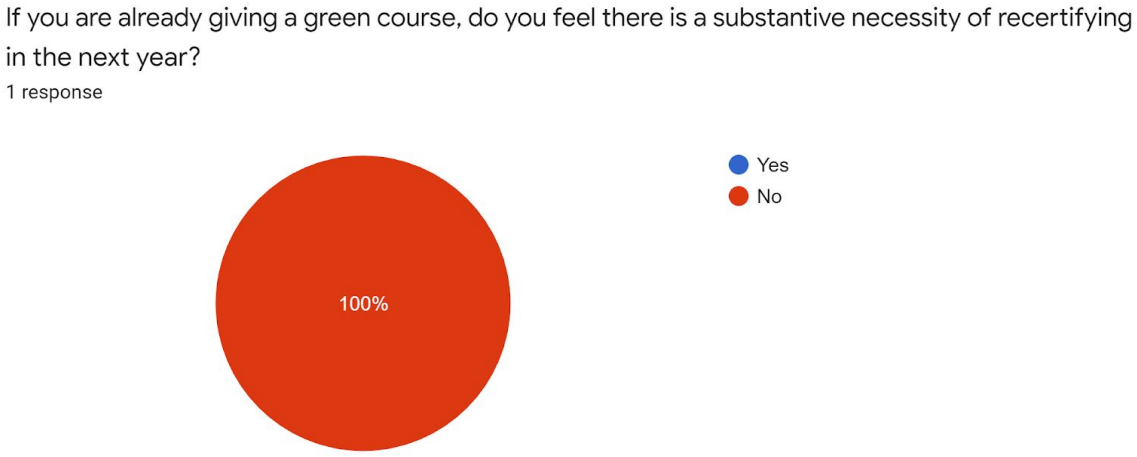

Figure 11: Survey Results for Question 6 for instructors and TAs

The results for question 6 (Figure 11) indicated that the instructor/TA respondent thought there was no substantive necessity of recertifying a green course if they were already giving one.

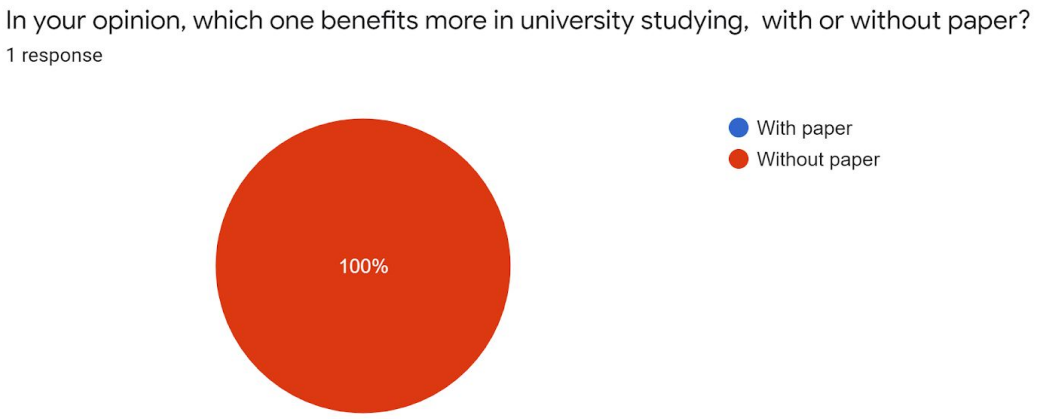

Figure 12: Survey Results for Question 7 for instructors and TAs

The results for question 7 (Figure 12) indicated that the instructor/TA respondent thought studying without paper benefits more in university.

Comparison

The waste reduction and sustainability initiatives which are relevant to educational purposes practiced in reputed educational institutions across and not limited to Ontario were studied to compare with the efforts and effectiveness of UTSC practice in metrics including initiatives and activities, waste data derived from sustainability reports, and sustainability ranking.

University of Toronto (Scarborough)

Some Innovative initiatives and programs relevant to waste reduction were raised and practiced,e.g, Green Courses saved thousands of pieces of paper annually. More directly, the Student Accounts Project which automated the process of reconciling financial information in the accounting system reduced more than 300,000 pages of paper reports yearly (UTSC, n.d.). However, the operation and impacts of the Sustainability Office are to be improved. For example, information about Green Courses is not displayed and updated in time; Green Ribbon Award is currently on hiatus (UTSC, n.d).

The diversion rate in the audit report is only 19.97%, much lower than the Ministry of the Environment & Climate Change's (MOECC) provincial objective of 60% waste diversion. Because it's one of the key measurements of waste reduction, this suggests continued improvements are very necessary. Total waste generated during the audit was 125.00 kg, and 15.29 kg was paper (Waste Audit Canada, Feb 2018).

UTSC's Ranking in STARS is not available because the University of Toronto, all three campuses, never submitted the STARS report.(Association for the Advancement of Sustainability in Higher Education, 2020)

University of Toronto (St. George)

Plenty of Green Resources and innovative programs including Green Courses, Living Labs, Student Group, green campus and so on. UTSG also launched the "No Waste November" campaign to encourage the involvement of people, asking them to give up one waste item for the month, sharing resources and connecting their local effort to a global campaign in 2017-2018. (University of Toronto, n.d.)

Based on the total amount of waste generated and materials diverted, the waste diversion rate at St.George Campus is approximately 67%. The facility's waste diversion rate exceeds MOECC's provincial objective of 60% waste diversion, suggesting UofT's management team efforts in reducing wastes disposed to landfill and maintaining a high waste diversion rate. Total Mixed Papers accounts for 10.3% of the total waste (SDK Environmental Consulting & Services, May 2018).

UTSG's Ranking in STARS is not available for the same reason as UTSC (Association for the Advancement of Sustainability in Higher Education, 2020).

University of Waterloo

With great efforts in both sustainability operations and engagement; high involvement for both staff and students, University of Waterloo is working to minimize waste, reduce emissions, and shrink our environmental footprint. As stated in the report, University of Waterloo is continually increasing its efforts and created two guiding documents Policy 53: Environmental Sustainability, and Environmental Sustainability Strategy on Environmental Sustainability.(University of Waterloo, n.d.)

According to the report, the sustainability goal in waste is to achieve a 60% diversion rate by 2025; by 2035, become a zero-waste campus (90% diversion rate). In 2018, 30.5% waste diverted from landfill, 3192 Tonnes of waste sent to landfill. Waterloo's diversion rate has continued to improve as the campus initiates new programs and services to reduce, reuse, and recycle waste. (University of Waterloo, n.d.)

University of Waterloo's report for STARS was submitted in Nov. 2018, rated Silver. (Association for the Advancement of Sustainability in Higher Education, 2020)

McMaster

Great efforts in facility and energy management, but less in education and awareness. The McMaster Teaching & Community Garden (MTCG) is a University sustainability initiative aiming to facilitate local food production, and more importantly to engage the McMaster and greater Hamilton community (McMaster University, n.d.). One noticeable service in getting students involved is the Experiential Learning Facility Services, with which students focused on sustainable composting initiatives are assisted.(McMaster University, n.d.)

In the Waste Reduction Plan, the university mentioned that they would continue to recycle and improve our waste diversion rates by recycling glass metal, cans, wood, paper, cardboards and printer cartridges. The waste diversion rate was increased from a total of 38% in 2015, to a total of 55% in 2018. (McMaster University, n.d.)

McMaster's Ranking in STARS is not available as it never submitted the report, the same reason as the University of Toronto.(Association for the Advancement of Sustainability in Higher Education, 2020)

Western University

Successfully deliver the idea of sustainability in class as it is taught in all Ivey (Business) programs. Sustainability awareness is well integrated into teaching, studying, and researching to "Create a Sustainable Western Experience" as introduced in its Sustainability Plan 2022 (Western University, Nov, 2012).

Western achieved great accomplishment in waste reduction strategies, reaching 60% waste diversion rates. Facilities Management estimates that 15% of waste are coffee cups and a further 20% are items that are recyclable. (Western University, n.d.)

It is ranked one of the tops in STARS in Ontario with the rating Gold (Association for the Advancement of Sustainability in Higher Education, 2020).

Humber College

No disclosure in Recycling and Waste Management and reports.

Ranked Top in STARS in Ontario, rated Gold. (Association for the Advancement of Sustainability in Higher Education, 2020).

Discussion

Survey

The survey was a useful tool to identify involvement and awareness of the Green Courses initiative. The following analysis will describe notable findings from the survey results.

One key finding from the survey was that up to 73.3 percent of respondents were unaware of the Green Courses initiative and 81.7 percent of respondents had not taken any Green Course on campus. The results indicated a very low awareness and involvement of the paper-reducing-related initiative on campus and much potential for further development of sustainability awareness. It is crucial to make more efforts to improve the awareness of the campus community about the environmental issues relating to wasting paper. Students and instructors could be inspired by various educational initiatives and learn the importance of reducing paper waste on U of T campus. The sustainability strategy at U of T is a long-term goal that depends on students' and instructors' sustainability awareness.

Another key finding was 67.8 percent of student respondents indicated that studying with paper benefits more in a university environment. By contrast, the instructor/TA respondent indicated that studying without paper could bring more benefits, mainly because of the occurrence of unexpected technical issues. From student respondents' perspective, reducing paper waste, stimulating micro-sustainability, digitizing lecture notes and not carrying books to school were all major advantages of the Green Courses initiative. They acknowledged various advantages brought by the Green Courses but also showed the necessity of studying with paper as they could be distracted while using computers. It is important to minimize the amount of paper we use and improve paper-using efficiency as paper-using is unavoidable in the studying process nowadays.

Comparison

In terms of Green Courses specifically, UTSC is ahead of the other ones. This is one of the innovative initiatives. The idea is not put forward clearly as a sustainability initiative in most universities and colleges, but those ideas of encouraging educators and students to use less paper are mentioned in their sustainability guideline as well. For example, University of Waterloo mentioned Print less: Use digital documents, print double-sided, and reuse paper that's still good on one side! in their Tips for living sustainably on campus and at home (University of Waterloo, n.d.).

UTSC's efforts in education and awareness are reflected in academic and research programs, but distant from best practice. For example, University of Waterloo is way more active in getting faculty members and students involved in sustainable education by their Ambassador network, Events and a discussion board with like-minded champions from across campus who are also supporting efforts in their own areas; students are actively engaged through advocacy, awareness-building, service offerings, and cutting-edge research by forming student groups (University of Waterloo, n.d.). By contrast, there are more universities like McMaster University which put great efforts in facility and energy management, but less in education and awareness (University of McMaster, 2018).

However, the actual effects of UTSC's practices in waste reduction need to be considered and more improvements to be made based on the lowest waste diversion rate among the compared institutions.

Limitations of the Study

During our study progress, several major issues were exposed. First, the survey responses were less than expected. Since we hoped to get one hundred feedback previously, and finally we got sixty. Second, the feedback data we collected was too concentrated. Only one survey of sixty came from the instructor. This indicates that our data may not be significant. Also, it could be biased towards students, rather than all faculty members. The third one is survey uncertainty. The actual awareness about Green Courses may be higher than the data reflected. Because respondents may not know they have taken related courses. This shows that Green Courses lacked publicity. In addition, the data provided by the university was limited. Due to the coronavirus, it is challenging to do data collection and contact with relative staff for additional information. These made our research analysis tend to be more theoretical.

The difficulty of quantifying differences occurs because various programs were being evaluated as a whole, so it won't be completely objective. Also, because the access to sustainability reports and relevant information of education institutions such as Humber College was denied, we could only have a peak on its attitude and aiming and more research to be done with access.

Recommendations

Marketing Plan

The data collected from the survey emphasizes the necessity of giving an educational marketing campaign. For example, 73.3 percent of respondents were unaware of the Green Courses initiative and 81.7 percent of respondents had not taken any Green Course on campus, which indicated a low awareness and involvement of the paper-reducing-related initiative on campus. The marketing plan would be a long-term plan making use of communication methods provided on campus. We would create an impactful marketing campaign from two perspectives: visuals (through social media) and communication.

Firstly, social media provides a platform for the initiatives to share and propagate their accomplishments to have an impact on the students and instructors. We will create posters, make short videos and build social accounts with the help of the University of Toronto official account. Posters will show main accomplishments and future sustainable-related activities, and alert the public with current paper consumption as well, for instance, students and instructors will be aware that UTSC uses an average of 12000 reams or 6,000,000 sheets of paper per year. In addition to posting impactful data to the public, short videos will discuss environmental issues caused by paper-wasting and address the importance of reusing paper in a creative way.

The second part of our marketing campaign relies on the functions provided by the official University of Toronto Acorn website. While students are enrolling into courses on Acorn, Acorn will show whether the course they are choosing is a Green Course or not. We also recommend the register offices to send a school-wide email to all students, staff and instructors at the beginning of each semester to inform their engagement in the Green Courses initiative. Course enrollment websites and email reminders are essential tools and communication methods for the university community, they can improve social awareness effectively.

Next Steps

In the future, more research needs to be done on this topic. Here are some ideas for further progress.

Firstly, We noticed that most paper-reducing-related projects are too theoretical for comparison of data. On the one hand, it would be better to collect more statistical data of how well students know about their paper-reducing project or initiative of their post-secondary institution in Canada. On the other hand, the plan for interviewing of initiative staff is stopped by the effect of COVID-19. Therefore, an interview about the operation and results, or even challenges of the Green Courses program in UTSC may contribute to the integrity of data and detailed, practical information behind this program.

Secondly, the survey respondents are mainly international students due to the circle of friends of group members. The result would be more significant if spreading the survey to more students and instructors on campus.

Finally, to improve the ‘Green Courses’ awareness of students, more publicity needs to be created. For example, as referred to the Reading and Writing Excellence (RWE) in UTSC, students could get a bonus mark if they attend Green Courses. This might raise the involvement of students. Besides, visual communications like posters and booth events would also improve the publicity of the Green Courses program and raise the awareness of students, instructors and staff in UTSC.

Conclusion

In conclusion, Universities play a unique role in helping to address sustainability issues. Based on the research findings, although the sustainability work in UTSC is at the forefront, still not too many students know about this sustainable initiative on our campus. Their relevant knowledge and awareness need to be raised. Besides, most other universities still have not considered and implemented the ‘Green Courses’ as a sustainable educational project on their campuses, which means ‘Green Courses’’ awareness is likely as well as absent from students in other universities.

As the result shows, the Green Courses project helps to reduce the consumption of paper on campus, which contributes to the improvement of resource efficiency, and ensures the sustainable consumption and production patterns. Also, it raises the quality of sustainable education.

References

Association for the Advancement of Sustainability in Higher Education. (2019). STARS Participants & Reports. Retrieved from https://reports.aashe.org/institutions/participants-and-reports/

Create a sustainable Western, (Nov, 2012). Western University. Retrieved from https://sustainability.uwo.ca/documents/strategy/SustainableWesternExperience.pdf

University of Waterloo. (n.d.). Green Office. Retrieved from https://uwaterloo.ca/sustainability/get-involved/green-office

University of Waterloo. (n.d.). Student Groups. Retrieved from https://uwaterloo.ca/sustainability/get-involved/student-groups

University of Waterloo. (n.d.). Sustainability Guide: Tips for living sustainably on campus and at home. Retrieved from https://uwaterloo.ca/sustainability/sites/ca.sustainability/files/uploads/files/sustainabili

ty_guide_accessible.pdf

University of Waterloo. (n.d.). Green Office Overview. Retrieved from https://uwaterloo.ca/sustainability/sites/ca.sustainability/files/uploads/files/green_office_overview.pdf

University of Waterloo. (n.d.). Environmental Sustainability Strategy. Retrieved from https://uwaterloo.ca/sustainability/about/environmental-sustainability-strategy

University of Waterloo. (n.d.). Waste and water data. Retrieved from https://uwaterloo.ca/sustainability/about/reporting/waste-and-water-data

University of McMaster. (n.d.). Academic Sustainability Program. Retrieved from https://asp.mcmaster.ca/

University of McMaster. (May 2019). Sustainability Report 2018. Retrieved from https://facilities.mcmaster.ca/app/uploads/2019/05/Sustainability-Report-2018.pdf

University of McMaster. (Sep. 2018). Environmental Sustainability Plan 2018. Retrieved from https://facilities.mcmaster.ca/app/uploads/2018/09/Environmental-Sustainability-Plan-2018.pdf

University of Toronto St. George Campus, (n.d.), 2017–2018 SUSTAINABILITY YEARBOOK, Retrieved from https://www.fs.utoronto.ca/SustainabilityOffice/SustainabilityYearbook2017-18
U of T Feb.2018 Waste Audit, (May, 2018), SDK Environmental Consulting & Services. Retrieved from https://www.fs.utoronto.ca/wp-content/uploads/2018/10/U-of-T-Feb.-2018-Waste-Audit.pdf

The UTSC Sustainability Office, (n.d.), UTSC Green Guide, Retrieved from https://www.utsc.utoronto.ca/sustainability/sites/utsc.utoronto.ca.sustainability/files/images/utsc-green-guide-version-1-1.pdf

The UTSC Sustainability Office, (n.d.), UTSC Green Courses, Retrieved from https://www.utsc.utoronto.ca/sustainability/utsc-green-courses

University of Toronto Scarborough. (Feb. 2018) Waste Audit and Waste Reduction Work Plan, Retrieved from https://www.utsc.utoronto.ca/sustainability/sites/utsc.utoronto.ca.sustainability/files/u8/Waste%20Audit%20Report%20-%20February%202018.PDF