Library Survey on Technologies, Trends, Services, and Spaces

Marvin K. Peterson Library

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TABLE OF CONTENTS

Executive Summary

The Marvin K. Peterson Library has served as the academic hub for information exchange at the University of New Haven (UNH) since its opening in 1974. The Library strives to provide its students with the necessary tools and technologies to achieve success at UNH. One of the main priorities of the Library is to seek feedback from students each year, in order to see where improvements can be made to help facilitate the pursuit of knowledge as well as ensure academic success.

The survey developed over the 2016-2017 school year sought feedback on how often students use particular services and spaces in the Library, how satisfied they are with these services and spaces, what aspects of the Library they are dissatisfied with, and other insights regarding current trends and technologies. The current survey asked 55 questions and allowed Chief Librarian, Hanko Dobi, a closer look into the needs of UNH students. In the past, surveys have focused on the 24/7 Library, the Library website, and satisfaction with technological resources. The purpose of this survey was to look into specific improvements that need to be made with the Library's technology, services, and physical space. This survey also allowed students an opportunity to air any dissatisfaction they have with the Library.

This survey was distributed to all UNH students via email and Campus Labs Baseline Instrument was used to collect and analyze data. Results showed that the majority of participants were full-time, undergraduate students. Participants indicated that overall, they are satisfied with the technology, services, and space available at the Library. There is the most room for improvement with Library printers, desktop computers, and the amount of electrical outlets on the quiet study floor. These results are consistent with results from previous surveys. Students surveyed also reported slight dissatisfaction with the capacity of the Library. Some of the main

suggestions made by participants were to update the desktop computers and increase the amount

of programs available on them, increase the number of electrical outlets available, increase the

efficiency of the printing system, add more databases and academic journals to the UNH

collection, and soundproof the group study rooms on the main floor.

Introduction

Each year, Chief Librarian, Hanko Dobi works with her graduate student assistant to create a survey that will help the Library better understand the needs of UNH students. Thanks to the feedback and data gathered from these surveys, they Library has been able to upgrade technology and make several changes over the past few years that have helped create a better learning environment for students. Some major changes occurred two summers ago when the Library underwent renovations which added more cubicles on the first floor, new seating, new paint and carpeting, and an additional study room for students to utilize. One of the core values of the Library is to be responsive to requests for change based on UNH community needs. As technology changes, so does the Library; continuously upgrading resources and working in constant effort to stay up-to-date. One of the main takeaways from last year's 2016 Spring Student Satisfaction Survey was that students had a need for more outlets so they could keep phones and laptops charged while working. In response, the Library added a phone charging station where students could plug their phones into mini lockers for safe charging while they worked. The Library also purchased portable battery packs that could be rented out from the reference desk in order to charge phones throughout the Library. The purpose of the current survey is to assess student satisfaction of Library space and resources, gain insight into new technology needs, and to allow students an opportunity to elaborate on any dissatisfaction with the Library.

The Library Survey on Technologies, Trends, Services, and Spaces will focus on these key questions:

- How often do students use various services and spaces throughout the Library?

- How satisfied are students with the various services and spaces offered by the Library?

- What services and spaces are students dissatisfied with?

- Are students satisfied with the Library environment (i.e.: lighting, temperature, seating, etc.)

- Are students familiar with QR codes and how to utilize them?

- How do students prefer to contact a librarian for help?

- What format do students prefer for books?

The results and data collected from this survey will help Chief Librarian, Hanko Dobi plan necessary changes and upgrades to the Marvin K. Peterson Library and will also help justify her reasons for planning and implementing these changes. The information gathered through these annual surveys provide invaluable insight and perspective into the needs of UNH students. No one knows what the students need to be successful better than the students themselves. By giving students an opportunity to give direct feedback on what is working for them and what is not working for them, the Library can achieve its goal of facilitating success in all scholarly pursuits.

Methodology

The Library Survey on Technologies, Trends, Services, and Spaces was created to evaluate the key questions and find out what improvements students would like to see. The survey was created by Chief Librarian, Hanko Dobi, and her graduate assistant over the course of the 2016-2017 school year. Through correspondence between Hanko and the graduate assistant, survey questions were edited and simplified in order to measure the key questions and gain the perspective of students.

The current survey consists of 55 questions. The first question asked participants if they were over the age of 18 in order to gain consent. The next four questions were demographics questions that provided insight into the sample. Questions 6-17 asked how often participants used certain Library services and spaces such as the Library catalogue, group study rooms, databases, desktop computers, and printers, among other things. Questions 18-29 asked participants to rate their satisfaction with the aforementioned services and spaces. Question 30 was an open-ended and asked participants to elaborate on any services or spaces they are dissatisfied with. Questions 31-35 addressed satisfaction with physical aspects of the Library. Question 36 asked whether participants prefer to study alone or in a group and question 37 asked those who like to study in a group what additional resources would be helpful for group study and allowed for open-ended comments. Question 38 assessed the desire for a small, private room to use for virtual meetings. Questions 39 and 40 inquired about printing. Question 41 asked participants if they were familiar with Library mobile technologies and gave an opportunity for open feedback. Question 42 asked participants if they use the battery packs available for charging phones and tablets. Questions 43 and 44 assessed familiarity with QR codes. Question 45 asked participants if the desktop programs and application offered met their needs and also

gave the option of giving open feedback. Questions 46 and 47 asked about Ebsco Discovery Services (EDS) and whether or not participants are satisfied with the results. Questions 48-53 asked participants to rate their preference on how they'd like to contact librarians for help. Question 54 was about inter-library loans and question 55 asked participants if they had a preference for hardcover books or e-books.

The final draft of this survey gained Institutional Review Board (IRB) approval on April 2nd, 2017 based on Exempt status under 45 CFR 46.101(b)(2). Upon IRB approval, the Library Survey on Technologies, Trends, Services, and Spaces was submitted to Campus Labs Baseline Survey Instrument for formatting and final revision. The survey was distributed to all UNH students via email on April 7th, 2017 and remained open until April 19th, 2017. The survey took about 15 minutes to complete and all participants were entered into a drawing to win one of two available $25.00 Amazon gift cards. The gift cards were used as incentive for students to participate in the survey. Contact information for Hanko Dobi and the graduate assistant, Kassity Truxell, were provided in the email containing the survey link in case students had any questions.

Once the survey closed, participant responses were analyzed by Campus Labs Baseline Instrument. *See Appendix A to view a final copy of the Library Survey on Technologies, Services, and Spaces*.

<center>**Results**</center>

A total of 431 students completed the entire survey. The purpose of the first question was to gain consent of participants age 18 and older. Questions two through five were demographics questions that 470 students responded to. Responses to these questions showed that 78.72% of participants were undergraduate students while 21.28% of participants were graduate students and 96.60% of participants were full-time students while only a mere 3.40% were part-time students. The majority of the sample was comprised of domestic students (89.57%) with only 10.43% identifying as international students. Question five showed that most of the participants were part of the Henry C. Lee College of Criminal Justice and Forensic Science (Figure 1).
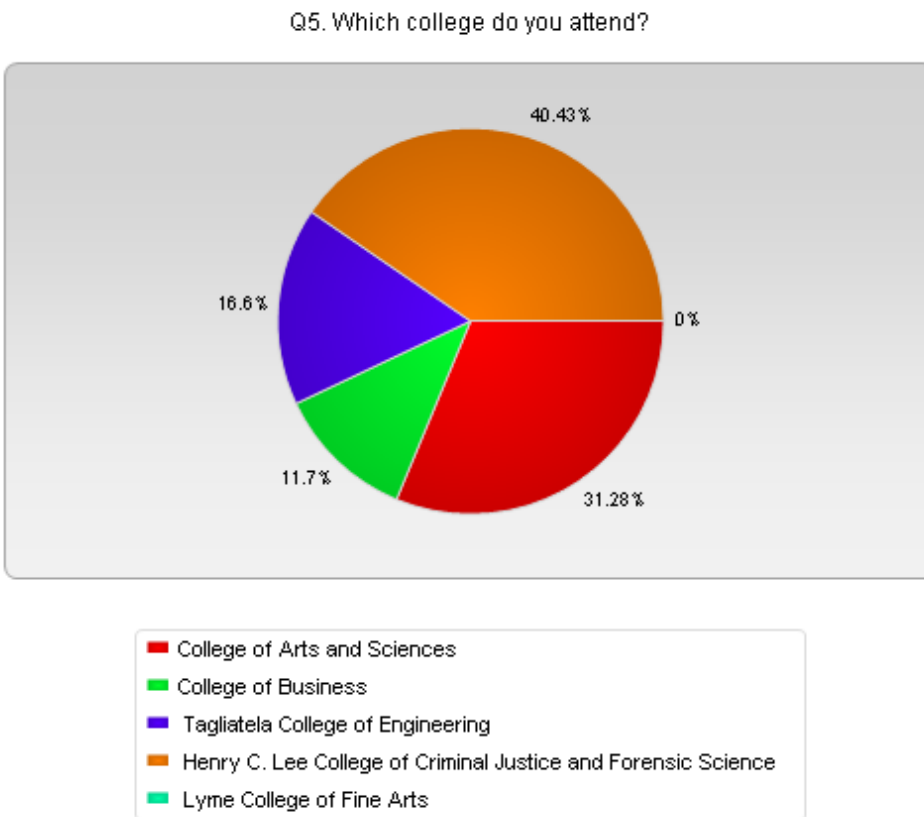

Figure 1: Percentage of participants in each college at UNH

Questions 6-35 were answered by 435 students, with the exception of question 30 which was completely open-ended and only had 159 responses. Questions 6-18 asked participants how often they used particular services and spaces offered at the Library. Question six found that 35.86% use the Library catalogue to search for books and government documents less than once per week, 14.71% use this service at least once per week, and 49.43% don't use it at all (Figure 2).

Q6. How often do you use the following library services and spaces: - Library catalog to search for books and government documents
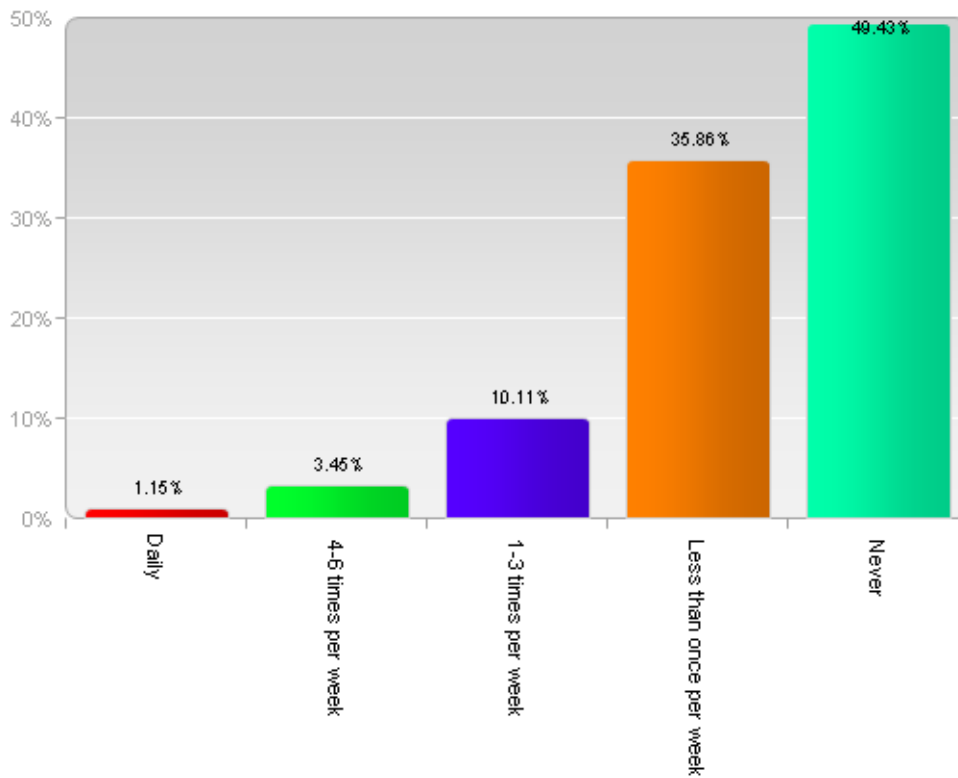
Figure 2: How often participants use Library catalogue

Question seven asked how often participants use Library databases. Based on the responses, it seems that students use Library databases on a regular basis with 43.45% of participants stating that they use this service less than once per week and 30.80% stating that

they use this service one to three times per week and only 16.78% stating that they never use

Library databases (Figure 3).

Q7. How often do you use the following library services and spaces: - Library databases
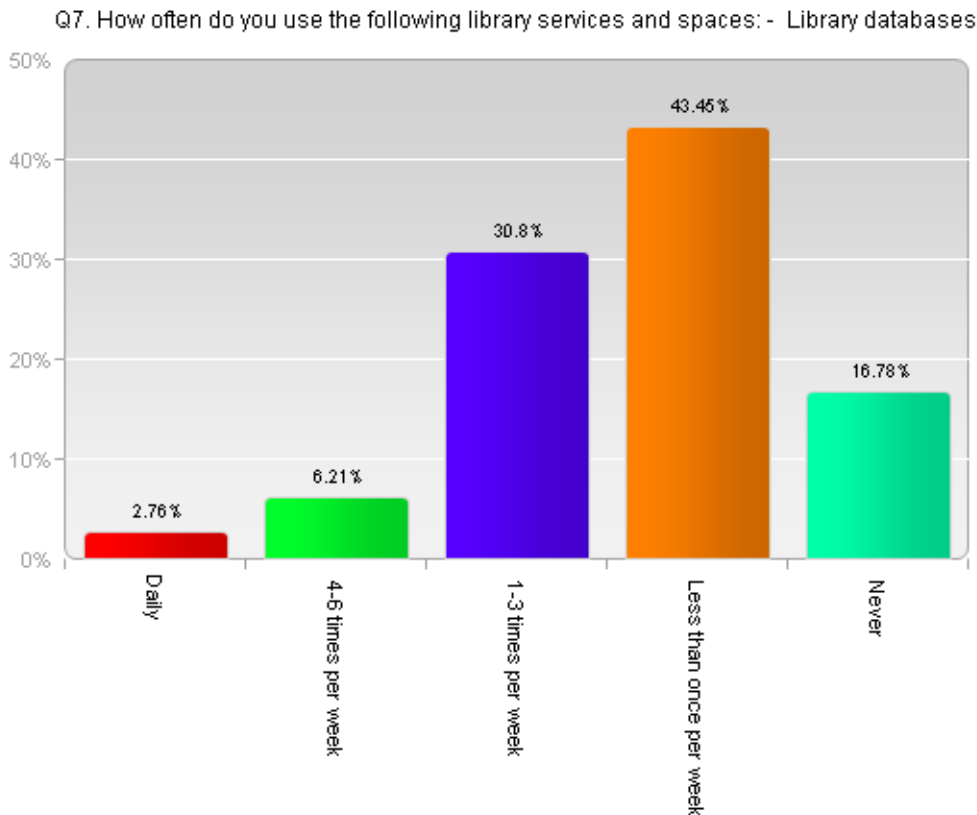
Figure 3: How often participants use Library databases

Question eight asked how often participants use laptop and iPad borrowing. The amount

of participants who use this service was surprisingly low with only 14.48% of respondents

reporting that they use this service at all and 85.52% stating that they never use this service

(Figure 4).

Q8. How often do you use the following library services and spaces: - Laptop/iPad borrowing
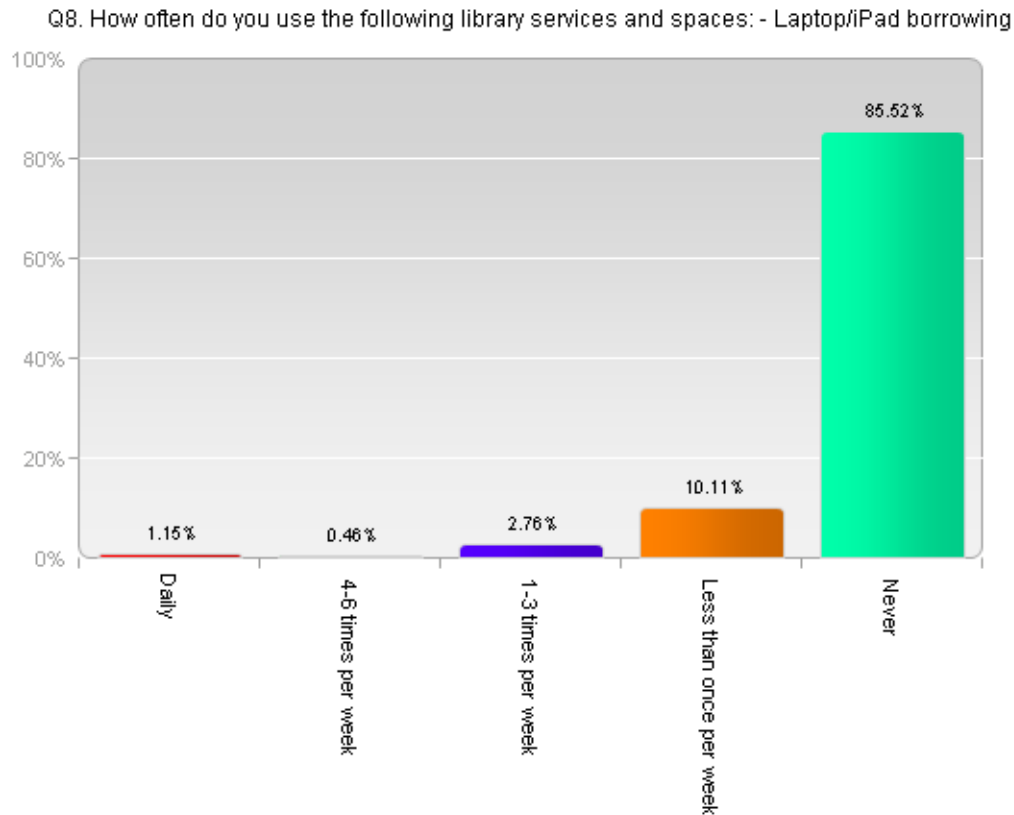
Figure 4: How often participants borrow laptops or iPads

Question nine looks at how frequently desktop computers are used in the Library. The responses to this question are similar to surveys of previous years, showing that the desktop computers are still a vital resource for students. The majority of students who took this survey use the desktop computers on a regular basis with only 12.18% reporting that they never use them (Figure 5).
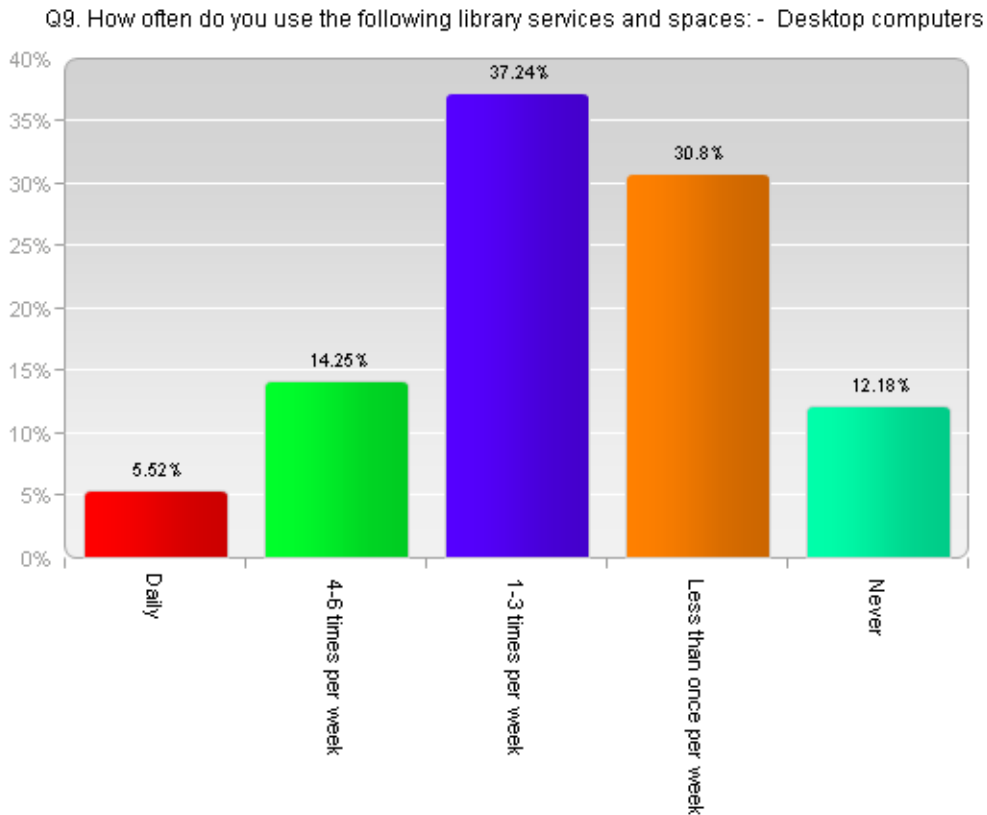
Figure 5: How often participants use desktop computers

Question 10 asked participants how often they use the Library's course reserve books. The majority of students who answered this question stated that they never use this resource. Only 38 out of 435 participants (8.74%) reported using course reserve books on a weekly basis (Figure 6).

Q10. How often do you use the following library services and spaces: - Course reserves
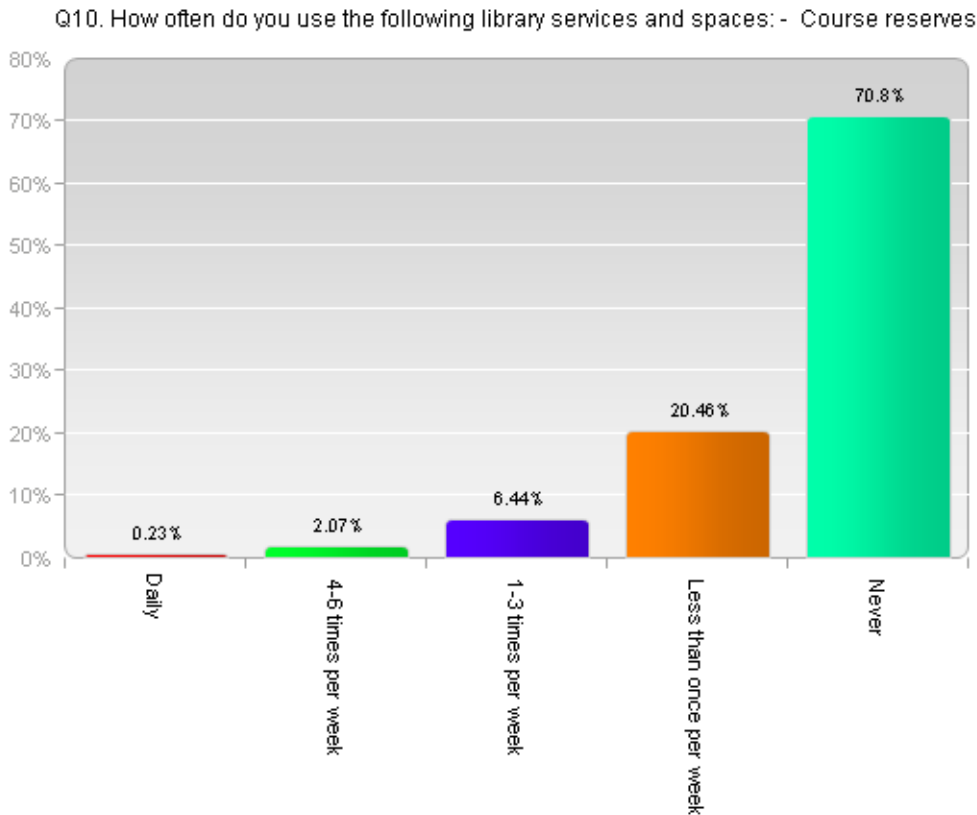
Figure 6: How often participants use course reserve books

Question 11 asked participants how often they use inter-library loans. The majority of respondents (80.69%) reported that they never use interlibrary loans. A very small portion of participants reported using inter-library loans on a weekly basis and 16.32% said that they use this service less than once per week (Figure 7).

Q11. How often do you use the following library services and spaces: - Inter-library loan (ILL)
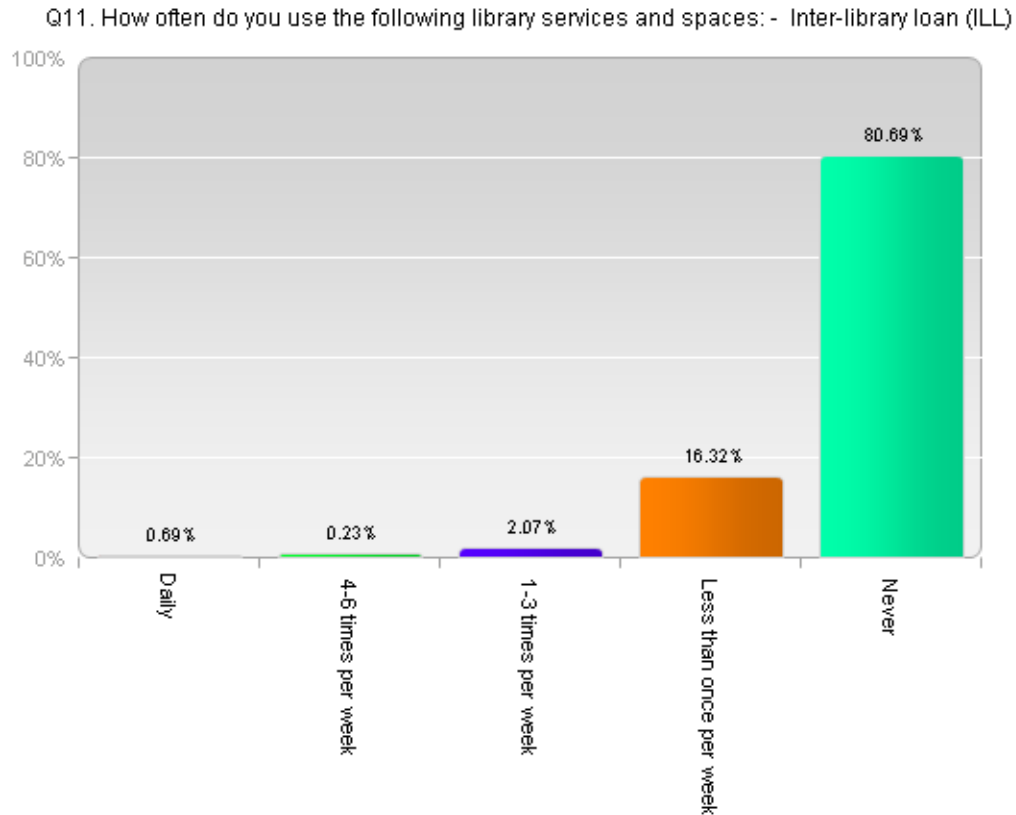
Figure 7: How often participants use inter-library loans

Question 12 inquired about how often students use the Library's reference desk. The results from this question showed that 54.71% of participants never use the reference desk, 31.26% of participants use it less than once per week, and 14.02% of participants use it on a weekly basis (Figure 8).

Q12. How often do you use the following library services and spaces: - Reference desk
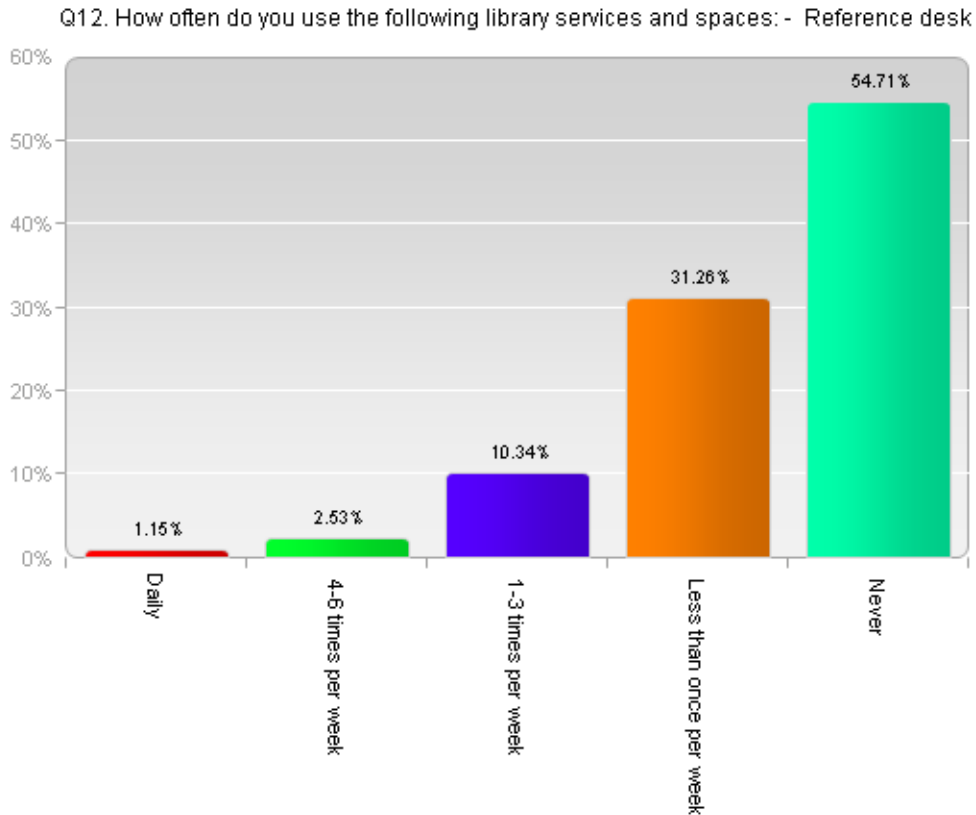
Figure 8: How often participants use the Library reference desk

Question 13 asked participants how often they use the Library scanner. Responses showed that 59.31% of participants do not ever use the scanners, 26.90% use the scanners less than once per week, 12.41% use them weekly, and 1.38% use them daily (Figure 9).

16
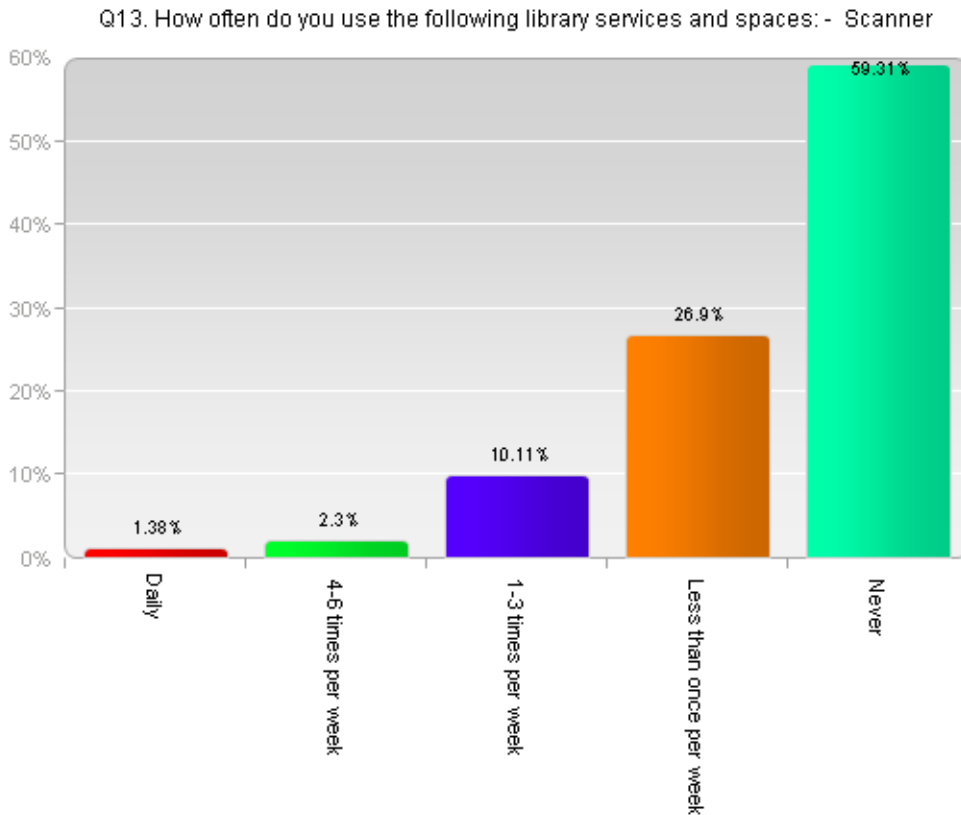
Figure 9: How often participants use Library scanners

Question 14 asked student participants how often they utilize the printers available at the Library. Responses to this question show that the printers are one of the most used resources available at the Library. The majority of participants (69.43%) use the printers at least once per week. Only 9.89% of the sample reported that they never use the Library printers (Figure 10).
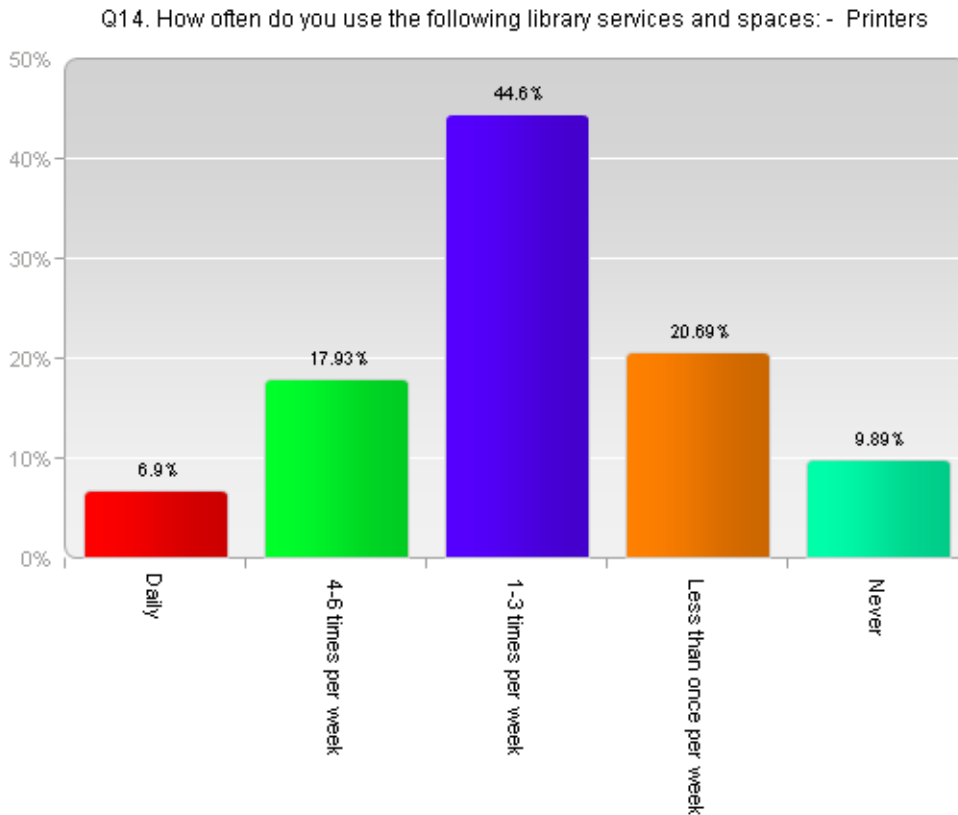
Figure 10: How often participants use Library printers

Question 15 asked participants how often they use the Library's quiet study floor. The responses to this question were a bit more spread out than previous questions. Responses show that 3.45% of participants use the quiet study floor daily, 8.74% use it 4-6 times per week, 22.07% use it 1-3 times per week, 27.39% use it less than once per week, and 38.39% never use the quiet study floor (Figure 11).

Q15. How often do you use the following library services and spaces: - Quiet study floor (upper level)
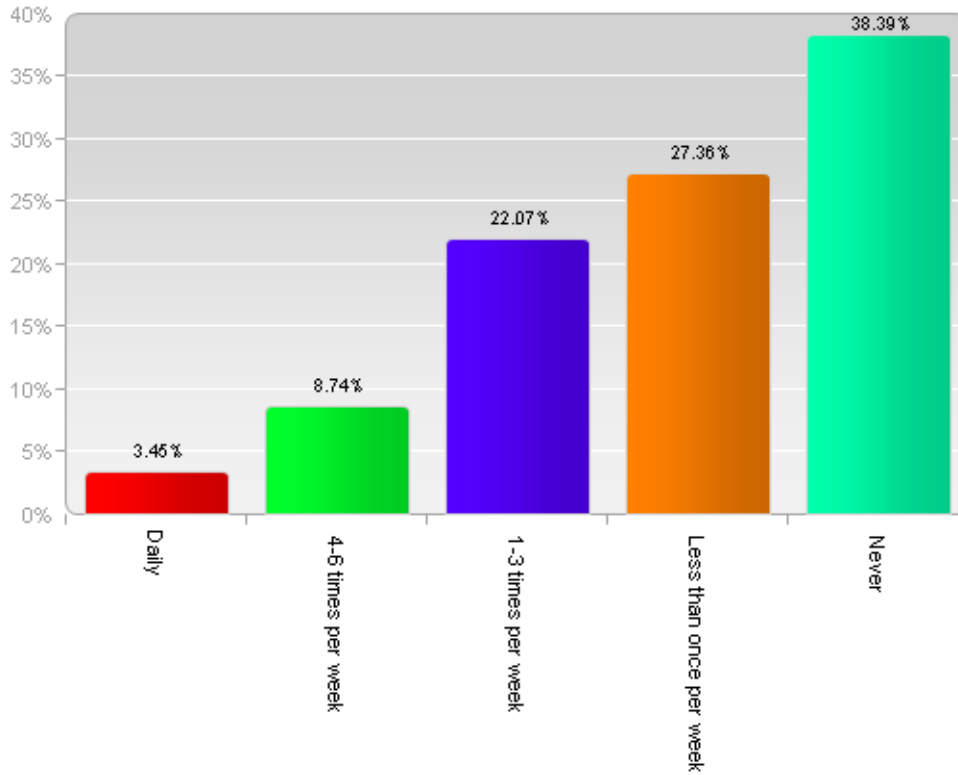
Figure 11: How often participants use the Library's quiet study floor

Question 16 asked participants how often they use the Library's group study rooms. Almost a third of participants (29.20%) reported that they use the study rooms less than once per week and the majority or participants (53.79%) reported that they never use the group study rooms (Figure 12).

Q16. How often do you use the following library services and spaces: - Group study rooms
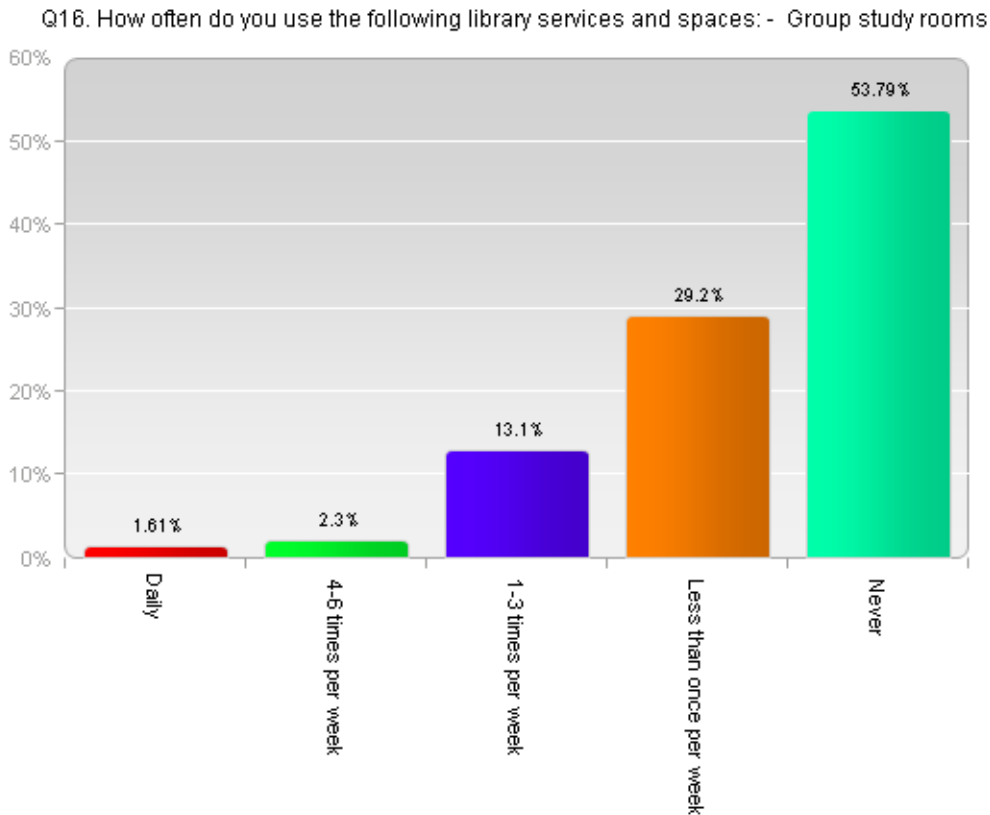
Figure 12: How often participants use group study rooms

Question 17 asked participants how often they use the collaborative lower level in the Library. Responses showed that many students utilize the lower level on a regular basis. 28.51% of participants use this space less than once per week, another 26.90% use it 1-3 times per week, 13.33% use it 4-6 times per week, and 6.44% use it daily. The remaining 24.83% of participants reported that they never use the collaborative lower level (Figure 13).

Q17. How often do you use the following library services and spaces: - Collaborative space (lower level)
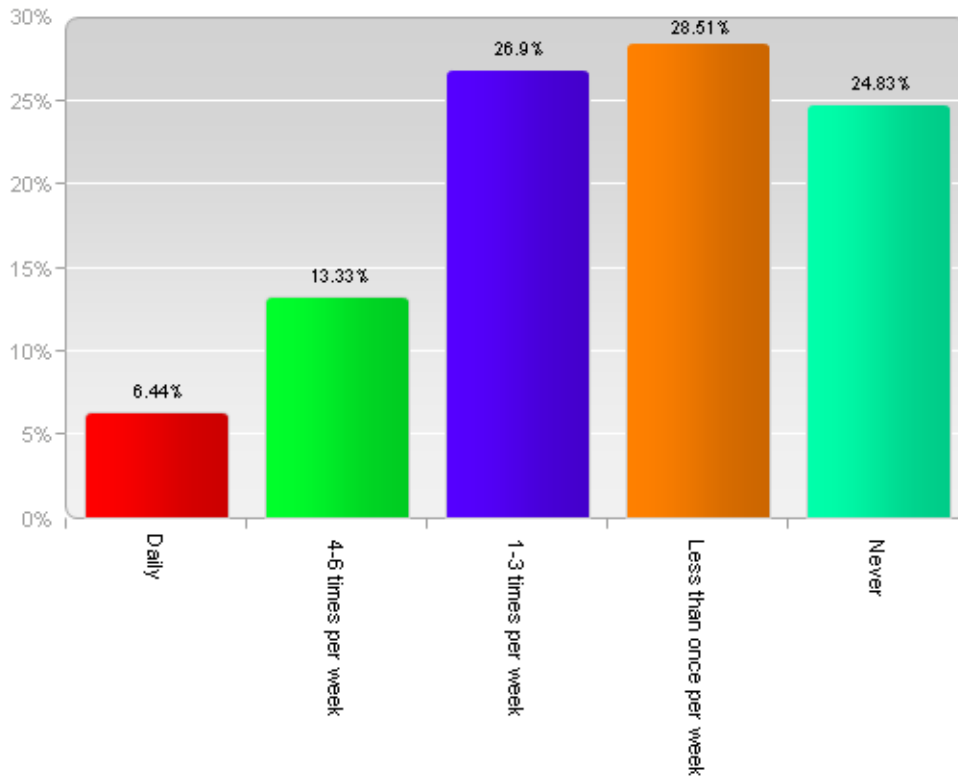
Figure 13: How often participants use the collaborative lower level

Questions 18-29 asked participants to rate their satisfaction with the particular Library services and spaces mentioned in the above questions. Question 18 asked participants how satisfied they are with the Library catalogue to search for books and government documents. The many of the respondents (48.97%) reported that they've never used this service. The majority of students who had used this service reported that they were satisfied (34.25%) or very satisfied (13.10%) with it and only 3.68% or participants reported being unsatisfied or very unsatisfied with this service (Figure 14).

Q18. Rate your satisfaction with the following library services and spaces: - Library catalog to search for books and government documents

Count	Percent	
5	1.15%	Very unsatisfied
11	2.53%	Unsatisfied
149	34.25%	Satisfied
57	13.10%	Very satisfied
213	48.97%	I have never used this service
435		Respondents

Figure 14: Satisfaction with Library catalogue

Question 19 looked at student satisfaction with the Library databases. Over three quarters of participants (77.70%) reported that they are satisfied or very satisfied with the Library databases. Only 4.37% reported that they are unsatisfied and 2.07% reported that they are very unsatisfied (Figure 15).

Q19. Rate your satisfaction with the following library services and spaces: - Library databases

Count	Percent	
9	2.07%	Very unsatisfied
19	4.37%	Unsatisfied
210	48.28%	Satisfied
128	29.43%	Very satisfied
69	15.86%	I have never used this service

Q19. Rate your satisfaction with the following library services and spaces: - Library databases

Count	Percent	
435		Respondents

Figure 15: Satisfaction with Library databases

Question 20 asked participants if they are satisfied with laptop and iPad borrowing at the Library. The vast majority of students surveyed (83.45%) reported that they have never used this service. Of the participants who had borrowed laptops or iPads from the Library, 11.03% said they are satisfied with the service and 3.91% said they are very satisfied, while less than 2% said they are either unsatisfied or very unsatisfied (Figure 16).

Q20. Rate your satisfaction with the following library services and spaces: - Laptop/iPad borrowing

Count	Percent	
3	0.69%	Very unsatisfied
4	0.92%	Unsatisfied
48	11.03%	Satisfied
17	3.91%	Very satisfied
363	83.45%	I have never used this service
435		Respondents

Figure 16: Satisfaction with laptop and iPad borrowing

Question 21 asked participants to rate their satisfaction with the Library desktop computers. The majority of students surveyed stated that they are either satisfied (49.20%) or

very satisfied (31.49%) with this resource. Only a small percentage said that they are unsatisfied (5.98%) or very unsatisfied (2.53%) with the Library desktop computers (Figure 17).

Q21. Rate your satisfaction with the following library services and spaces: - Desktop computers

Count	Percent	
11	2.53%	Very unsatisfied
26	5.98%	Unsatisfied
214	49.20%	Satisfied
137	31.49%	Very satisfied
47	10.80%	I have never used this service
435		Respondents

Figure 17: Satisfaction with Library desktop computers

Question 22 asked participants to rate their level of satisfaction with the course reserves. 73.10% of the sample reported that they've never used course reserves. Of the remaining 26.90% of the sample who have used course reserves, 17.01% reported that they are satisfied with this service and 7.13% reported that they are very satisfied (Figure 18).

Q22. Rate your satisfaction with the following library services and spaces: - Course reserves

Count	Percent	
4	0.92%	Very unsatisfied
8	1.84%	Unsatisfied
74	17.01%	Satisfied

Q22. Rate your satisfaction with the following library services and spaces: - Course reserves

Count	Percent	
31	7.13%	Very satisfied
318	73.10%	I have never used this service
435		Respondents

Figure 18: Satisfaction with course reserves

Question 23 asked participants to rate their satisfaction with inter-library loans. The large majority of respondents (78.85%) have never used inter-library loans. 13.33% of students are satisfied with inter-library loans and 5.29% are very satisfied. Only 1.38% are unsatisfied and 1.15% are very unsatisfied (Figure 19).

Q23. Rate your satisfaction with the following library services and spaces: - Inter-library loan (ILL)

Count	Percent	
5	1.15%	Very unsatisfied
6	1.38%	Unsatisfied
58	13.33%	Satisfied
23	5.29%	Very satisfied
343	78.85%	I have never used this service
435		Respondents

Figure 19: Satisfaction with interlibrary loans

Question 24 had participants rate their level of satisfaction with the Library reference desk. 19.31% of participants reported that they are very satisfied with the reference desk, 28.74%

said that they are satisfied, 2.07% said they are unsatisfied, 2.07% said they are very unsatisfied and 47.82% have never used the Library reference desk (Figure 20).

Q24. Rate your satisfaction with the following library services and spaces: -

Reference desk

Count	Percent	
9	2.07%	Very unsatisfied
9	2.07%	Unsatisfied
125	28.74%	Satisfied
84	19.31%	Very satisfied
208	47.82%	I have never used this service
435	Respondents	

Figure 20: Satisfaction with Library reference desk

Question 25 asks participants to rate their satisfaction with the scanner at the Library. Of the respondents, 13.33% are very satisfied with the scanner, 24.60% are satisfied, 2.30% are unsatisfied, 1.38% are very unsatisfied, and 58.39% have never used the scanner (Figure21).

Q25. Rate your satisfaction with the following library services and spaces: - Scanner

Count	Percent	
6	1.38%	Very unsatisfied
10	2.30%	Unsatisfied
107	24.60%	Satisfied
58	13.33%	Very satisfied
254	58.39%	I have never used this service

Q25. Rate your satisfaction with the following library services and spaces: - Scanner

Count	Percent	
435	Respondents	

Figure 21: Satisfaction with scanner

Question 26 asks participants to rate their level of satisfaction with the printers at the Library. The vast majority of participants have used the printers at some point and are either very satisfied (33.33%) or very satisfied (47.36%), however, more students expressed dissatisfaction with this service than any of the other services (Figure 22).

Q26. Rate your satisfaction with the following library services and spaces: - Printers

Count	Percent	
11	2.53%	Very unsatisfied
33	7.59%	Unsatisfied
206	47.36%	Satisfied
145	33.33%	Very satisfied
40	9.20%	I have never used this service
435	Respondents	

Figure 22: Satisfaction with printers

Question 27 had the student sample rate their levels of satisfaction with the quiet study floor. Most participants are either satisfied (31.26%) or very satisfied (30.34%) with the quiet floor but 4.14% said they are unsatisfied and another 2.53% said they are very unsatisfied. The remaining 31.72% of respondents do not use the quiet study floor (Figure 23).

Q27. Rate your satisfaction with the following library services and spaces: - Quiet study floor (upper level)

Count	Percent	
11	2.53%	Very unsatisfied
18	4.14%	Unsatisfied
136	31.26%	Satisfied
132	30.34%	Very satisfied
138	31.72%	I have never used this service
435		Respondents

Figure 23: Satisfaction with quiet study floor

Question 28 asked participants to rate their satisfaction with the group study rooms in the Library. 13.56% reported that they are very satisfied with this resource and 31.56% reported that they are satisfied. A small percentage said they are unsatisfied (4.60%) with the group study rooms and an even smaller percentage (1.15%) said they are very unsatisfied. About half of the respondents (48.74%) do not use the group study rooms (Figure 24).

Q28. Rate your satisfaction with the following library services and spaces: - Group study rooms

Count	Percent	
5	1.15%	Very unsatisfied
20	4.60%	Unsatisfied
139	31.95%	Satisfied
59	13.56%	Very satisfied

Q28. Rate your satisfaction with the following library services and spaces: - Group study rooms

Count	Percent	
212	48.74%	I have never used this service
435		Respondents

Figure 24: Satisfaction with group study rooms

Question 29 asked participants to rate their level of satisfaction with the collaborative lower level of the Library. Most respondents reported that they are very satisfied (27.59%) or satisfied (42.99%) and 7.82% of the sample reported being either unsatisfied or very unsatisfied with the collaborative study floor. Only 21.61% of the sample reported that they never use the collaborative study floor (Figure 25).

Q29. Rate your satisfaction with the following library services and spaces: - Collaborative space (lower level)

Count	Percent	
8	1.84%	Very unsatisfied
26	5.98%	Unsatisfied
187	42.99%	Satisfied
120	27.59%	Very satisfied
94	21.61%	I have never used this service
435		Respondents

Figure 25: Satisfaction with collaborative study floor

Question 30 was completely open-ended and asked participants to elaborate on ant services or spaces that they are dissatisfied with (*see Appendix B for all answers to this*

question). There were quite a few common themes throughout the comments and suggestions left by participants. The most prevalent theme was the desire for more electrical outlets, particularly on the third floor. Of the 159 respondents, 35 (22.01%) expressed dissatisfaction with the amount of electrical outlets available to charge their laptops. The second most prevalent theme was dissatisfaction with the printers. A few students complained about the cost of printing and others complained about the lack of availability of printers. Of the 159 responses, 26 (16.35%) were about the printers. Some other common themes were about the desktop computers, databases and software available, group study rooms, and eating in the Library. 17 students (10.69%) surveyed expressed dissatisfaction with the desktop computers in the Library. Their main concerns were that the desktops run slowly, many need to be updated, and there are sometimes not enough available. In regard to databases and software available at the Library, 14 students (8.81%) expressed a need for more databases, journals, inter-library loans, and specific programs. 11 participants (6.92%) expressed dissatisfaction with the group study rooms. They said that the loved having the group study rooms available, but the lack of soundproofing made it very difficult to complete group work and focus on projects. The final common theme was food availability at the Library. Eight students (5.03%) expressed dissatisfaction with the policies regarding where food is allowed in the Library as well as the lack of food available during the late hours.

Questions 31-35 asked participants to rate their satisfaction with physical attributes of the Library. Question 31 inquired about the lighting. The majority of participants (65.98%) stated that they are satisfied with the lighting. Only 8.97% reported that they are either dissatisfied or very dissatisfied with the lighting in the Library (Figure 26).

Q31. Please rate the overall satisfaction of the physical library space: - Lighting

Count	Percent	
13	2.99%	Very unsatisfied
26	5.98%	Unsatisfied
287	65.98%	Satisfied
109	25.06%	Very satisfied
435		Respondents

Figure 26: Satisfaction with lighting

Question 32 had participants rate their level of satisfaction with the temperature at the Library. The majority of participants (64.37%) are satisfied, but there was a small spike in dissatisfaction from the previous question. 11.26% of participants reported that they are unsatisfied with the temperature and 2.99% reported that they are very unsatisfied (Figure 27).

Q32. Please rate the overall satisfaction of the physical library space: - Temperature

Count	Percent	
13	2.99%	Very unsatisfied
49	11.26%	Unsatisfied
280	64.37%	Satisfied
93	21.38%	Very satisfied
435		Respondents

Figure 27: Satisfaction with temperature

Question 33 asked participants how satisfied they are with the seating in the Library. The majority of participants (57.47%) said that they are satisfied with the seating, however a quarter

of participants (25.52%) stated that they are either unsatisfied or very unsatisfied with the seating available (Figure 28).

Q33. Please rate the overall satisfaction of the physical library space: - Seating

Count	Percent	
22	5.06%	Very unsatisfied
89	20.46%	Unsatisfied
250	57.47%	Satisfied
74	17.01%	Very satisfied
435		Respondents

Figure 28: Satisfaction with seating

Question 34 asked participants to rate their level of satisfaction with the electrical outlets in the Library. As expected, based on the responses from question 30, the most dissatisfaction was expressed here. 20.46% of participants reported that they are unsatisfied with the electrical outlets at the Library and 11.26% reported that they are very unsatisfied. While the highest number of participants expressed dissatisfaction with this particular attribute of the Library, the majority still stated that they are either satisfied (47.13%) or very satisfied (21.15%) with the electrical outlets in the Library (Figure 29).

Q34. Please rate the overall satisfaction of the physical library space: - Electrical outlets

Count	Percent	
49	11.26%	Very unsatisfied
89	20.46%	Unsatisfied

Q34. Please rate the overall satisfaction of the physical library space: - Electrical outlets

Count	Percent	
205	47.13%	Satisfied
92	21.15%	Very satisfied
435		Respondents

Figure 29: Satisfaction with electrical outlets.

Question 35 asked participants how satisfied they are with the capacity of the Library. Over half of the participants said that they are satisfied (55.40%) but about a quarter of participants stated that they are unsatisfied (20.00%) or very unsatisfied (6.21%). The remaining 18.39% stated that they are very satisfied with the capacity of the Library (Figure 30).

Q35. Please rate the overall satisfaction of the physical library space: - Capacity

Count	Percent	
27	6.21%	Very unsatisfied
87	20.00%	Unsatisfied
241	55.40%	Satisfied
80	18.39%	Very satisfied
435		Respondents

Figure 30: Satisfaction with capacity

Only 431 students responded questions 36-45. Question 36 asked participants whether they preferred to study alone, in a group, or both. Of the 431 respondents, 48.65% reported that they prefer to study both alone and in a group, 46.40% reported that they prefer to study alone, and 3.94% reported a preference for studying alone.

Question 37 followed up with those who like to study in group settings. This question asked if moveable furniture, whiteboards and dry erase markers, more study rooms, technology, or anything else would be beneficial to group study. Participants were allowed to choose more than one answer and could also select "other" where they could type in a response if they wished (*see Appendix C for all responses*). White boards and dry erase markers were the most desired resource as 61.25% of the sample said they would be useful for group study. The second most desired resource was moveable furniture with 56.61% of the sample stating it would be useful, and the third most desired resource was more study rooms with 54.52% of the sample choosing this resource. Only 38.98% of the sample chose technology as something that would be useful to group study and 22.04% of the sample stated that they did not like to study in group settings. Of the 431 respondents, 11 chose "other" and left comments on what would be useful to group study. The most common theme of these suggestions centered on additional furniture such as comfortable chairs, tables, and whiteboards.

Questions 38-40 were relatively simple questions. Question 38 asked participants if a small, private room would be useful for virtual meetings and study space. 69.61% of participants said "yes" and 30.39% said "no." Question 39 asked if participants printed from the library desktops, a personal laptop, or both. Results indicate that 57.08% of participants print from Library desktops, 14.39% print from their personal laptops, and 28.54% print from both the Library desktops and their personal laptops. Question 40 inquired about adding a print only station to the Library. According to responses, 85.38% thought this would be beneficial and only 14.62% thought it would not be beneficial.

Question 41 asked participants if the mobile technologies provided by the Library met their needs. It was a yes or no question that allowed students to suggest improvements if they

don't think the mobile technologies meet their needs. Results showed that 86.54% of participants felt that the mobile technologies at the Library meet their needs. The remaining 13.46% said that mobile technologies at the Library do not meet their needs and left comments to explain why (*see Appendix D for all explanations*). The two most common themes were wireless printing capabilities and confusion by this question. Responses show that 10.34% of students who answered no to this question are dissatisfied with wireless printing. They either cannot connect to the printers from their laptops or feel that the Library's wireless printing service is unreliable. Another 10.34% of students who answered no to this question were unsure of what the question was asking or what mobile technologies the question was referring to. The need for more databases and specific programs showed up again in this question as 6.90% of students who answered no to this question asked for more databases, easier access to databases, or specific Engineering programs. Updated laptops were also a common request (5.17%) among participants who answered no to question 41.

Question 42 asked participants if they use the battery packs available at the reference desk to charge their phones and/or tablets. Results showed that 82.60% of participants do not use the battery packs and 17.40% do.

Questions 43 and 44 asked students surveyed about their familiarity with QR codes. According to responses, 45.01% of participants have used a QR code before and 54.99% have not. Question 44 asked students if their mobile device has a QR reader. If they answered yes, the question prompted them to type in what mobile device they use (*see Appendix E for full list of mobile devices*). The majority of participants (52.90%) reported that their mobile device does have a QR reader and 63.16% of those with a QR reader use an iPhone. The remaining 47.10% of the sample said that their phone does not have a QR reader.

Question 45 asked participants if the programs and applications available on the Library desktop computers meet their academic needs. If participants answered yes, they moved on to the next question, if they answered no, they were prompted to suggest applications and programs that should be included on the desktop computers. Results show that the programs and applications currently available on Library desktops meet 88.40% of the sample's needs. The remaining 11.60% would like to see Adobe programs including PDF editor and Photoshop, autoCAD, LabView, Publisher, Solidworks, and others (*see Appendix F for full list of desired programs and applications*).

Results show that 428 participants responded to questions 46-55. Questions 46 and 47 inquire about Ebsco Discovery Service (EDS). According to responses, 47.66% of respondents never use EDS to search the Library's resources, 35.75% use EDS to search occasionally, and 16.59% use it every time they research. Question 47 asked participants if they are satisfied with the results EDS provides. Responses show that 6.31% are very satisfied, 44.86% are satisfied, 2.10% are unsatisfied, 1.17% are very unsatisfied, and the remaining 45.56% do not use EDS.

Questions 48-53 asked participants how they would prefer to contact a librarian for help. The question had them rate their preference from first preference to sixth preference. Most participants (52.80%) chose in-person as their first preference for contacting a librarian for help. Email was the most commonly chosen second preference (42.52%), instant messaging service was the most commonly chosen third preference (23.13%), phone was the most commonly chosen fourth preference (24.77%), Blackboard was the most commonly chosen fifth preference (25.93%), and social media was the most commonly chosen sixth preference (43.93%).

Question 54 asked participants if self-service inter-library loans would be beneficial and 83.88% of the sample said "yes" while only 16.12% said "no."

Question 55 was the final survey question and it asked participants if they prefer to read hardcover books, e-books, or have no preference. According to responses, 59.11% prefer hardcover books, 12.85% prefer e-books, and 28.04% have no preference.

Discussion

How often do students use various services and spaces throughout the Library?

According to the results from the Library Survey on Technologies, Trends, Services, and Spaces, the printers are the most used service available at the Library. Less than 10% of students surveyed said that they never use the printers while 69.43% of students surveyed use the printers on a weekly basis. This shows what a valuable resource that the Library printers are for the students at UNH. Several participants suggested implementing a print only station to help speed up the printing process and increase efficiency and according to question 40, 85.38% of participants thought a print only station would be beneficial. Another common suggestion was to update the wireless printing capabilities and advertise instructions on how to use this service. With so many students using printers on a regular basis, this would be a great idea. Promoting the wireless printing option would also free up desktop computers for other students to use. Future research could be done to see how many students are aware of the wireless printing option, how it can be improved, and how best to advertise this option to students and assist them with setting it up.

Desktop computers are the second most used service available at the Library. Only 12.18% of the sample reported that they never use desktop computers and 57.01% reported using them on a weekly basis. Some participant suggestions on ways to improve advocated for more desktop computers. If print only stations were implemented and wireless printing was emphasized, this may help increase the number of desktop computers available for use.

The service least utilized at the Library are the laptops and iPads available for borrowing. Based on a few of the open-ended comments from participants, a reason for this may be because Library laptops are perceived as being older models that are slow to use. Another reason for their

lack of use may be due to the fact that many students at UNH have their own personal laptops and iPads and don't need to borrow the Library's. When asked to rate their level of satisfaction with Library laptops and iPads, the vast majority of participants who have used this service said they are either satisfied or very satisfied. Of the 72 participants who use the Library laptops and iPads, only four said they are unsatisfied and three said they are very unsatisfied. Due to lack of use, it may not be worth the money to make costly updates to the Library laptops and iPads.

How satisfied are students with the various services and spaces offered by the Library?

Overall, students surveyed seemed relatively satisfied with the services and spaces offered by the Library. The most common answers for all of the questions regarding satisfaction were either "satisfied" or "I have never used this service." This shows that there is room for improvement, but for the most part, students are content.

The two services that had the highest amount of dissatisfaction among participants were the printers and the desktop computers. Of 435 respondents, 44 reported that they are either unsatisfied or very unsatisfied with the printers and 37 reported that they are either unsatisfied or very unsatisfied with the desktop computers. Open-ended comments in question 30 reflected this as well. The desktop computers and printers are two of the most used services provided by the Library. During peak times, there are most likely wait times for these services and since they are in constant use, the wear and tear on desktop computers and printers is higher than normal. Further research should continue to see where improvements can be made with these two resources since they are so vital for academic success at UNH.

What services and spaces are students dissatisfied with?

There were many different suggestions for improving the Library and several participants opted out of this question or wrote "n/a." However, for the ones who did express dissatisfaction

and suggest ways to improve, there were several common themes. The most prevalent was dissatisfaction with the number of electrical outlets available on the quiet study floor. Of the 159 comments, 35 were about the lack of electrical outlets on the quiet floor. Many students suggested adding more outlets closer to the desks and indicated that more outlets would allow them to keep their laptops charged while studying. The addition of more power outlets on the quiet study floor has been requested in this survey as well as surveys in the past. Future research should look into ways this need can be accommodated. Perhaps the addition of extension cords and multi outlet converters can be used until a more permanent solution is available.

Consistant with the satisfaction questions from this survey and responses from previous surveys, there is also a high level of dissatisfaction with printers and desktop computers. Feedback showed that 26 out of the 159 students who left open ended comments on question 30 are dissatisfied with the printers and 17 are dissatisfied with the desktop computers. Since this is such a reoccurring theme, future research should look into the best way to improve these two resources. Based on the results from this survey and the Library Student Satisfaction Survey from 2016, it seems that a print only station and increased awareness and functionality of the wireless printing option would be the quickest fix to this problem.

Are students satisfied with the Library environment (i.e.: lighting, temperature, seating, etc.)

In terms of the Library environment, there seemed to be slightly higher rates of dissatisfaction than with the Library services and spaces. Overall, most students reported that they are satisfied with the lighting, temperature, seating, electrical outlets, and capacity of the Library, but results indicate that there is definitely room for improvement. As reflected by other questions and comments in this survey, participants are most dissatisfied with the electrical outlets available in the Library. Of the 435 respondents, 138 stated that they are either unsatisfied

or very unsatisfied with the electrical outlets. The other physical aspect of the Library that students are most dissatisfied with is the Library's capacity. 114 participants chose unsatisfied or very unsatisfied when asked to rate their level of satisfaction with Library capacity. One reason behind this may be that many students come to the Library during peak times such as during midterms and finals. Future research could look into ways to reorganize the Library space in order to make room for more tables, chairs, and desks and increase the usability of the space available.

Are students familiar with QR codes and how to utilize them?

This survey showed that out of 431 respondents, 194 had used a QR code before and 237 had not. When asked if their mobile device had a QR code reader, 228 said yes and 203 said no. Based on these results, it seems that most participants are familiar with QR codes but do not use them on a regular basis. When asked what mobile device those with a QR code reader use, comments revealed that the majority had iPhones and also that the Snapchat app, as well as other apps available, can be used to read QR codes. This is helpful information since Snapchat is a very commonly used social media app among college students. If the Library were to implement the use of QR codes, with proper advertisement and information available, most students should be able to utilize this resource.

How do students prefer to contact a librarian for help?

When looking at how students prefer to contact a librarian for help, most of the participants were in agreement with their rankings. The top choice for participants was to contact a librarian for help in-person. This seems to make sense considering when students need a librarian's help, they are most likely already in the Library. Email was most commonly chosen as the preferred second choice, instant messaging service was most commonly chosen as the

preferred third choice, over the phone was most commonly chosen as the preferred fourth choice, Blackboard was most commonly chosen as the preferred fifth choice, and social media was most commonly chosen as the last choice.

What format do students prefer for books?

The survey shows that students prefer to read books in hardcover format. Out of 428 respondents, 253 preferred traditional, hardcover books, 120 did not have a preference, and only 55 chose e-books as their preferred reading format. The strong preference toward hardcover books limits the Library's ability to convert any of its collection to e-books. Perhaps future research could look into which books are used most often and which books are used least often. Those that are used least often could be converted into e-books. Converting books that don't get much use into e-books could free up space in the Library, allowing for more desks, tables, and computers, which would help solve the capacity issue.

Appendix A: Student Survey

<u>Library Survey on Technologies, Trends, Services, and Spaces</u>

How can we improve? Please take a moment to help us improve your experience at the Marvin K. Peterson Library.

Participation in this survey is voluntary and will be considered confidential. You are free to withdraw or discontinue participation in the survey at any time without any explanation or further contact from the researchers. This survey is anonymous. An analysis of the aggregated results will be reported on the Library's web site.

This survey was reviewed and received IRB Approval on April 2, 2017 (Protocol #2017-2018). If you have any questions or concerns regarding this survey or your rights as a research participant and would like to speak with the researcher(s), contact Kassity Truxell at ktrux1@unh.newhaven.edu or Hanko Dobi at hdobi@newhaven.edu

If you have any questions or concerns regarding this study or your rights as a research participants and would like to talk to someone other than the researcher(s), contact the chair of the Institutional Review Board at UNH, Alexandria Guzmán at (203) 479-4562.

Survey participants who complete the entire survey and submit it will be entered into a random drawing for one of two $25.00 Amazon gift cards.

You must be 18 years of age or older to legally consent to participate in this survey study. If you are younger than 18 years of age, please exit the survey by selecting "NO" for question 1 below.

1. Are you 18 years of age or older?

   - Yes

   - No

2. Are you a UNH undergraduate or graduate student?

   - Undergraduate

   - Graduate

3. Are you a full-time student or a part-time student?

   - Full-time

   - Part-time

4. Are you an International Student?

   - Yes

   - No

5. Which college do you attend?

   - College of Arts and Sciences

   - College of Business

   - Tagliatela College of Engineering

   - Henry C. Lee College of Criminal Justice and Forensic Science

   - Lyme College of Fine Arts

6. How often do you use the following library services and spaces:

	Daily	4-6 times per week	1-3 times per week	Less than once per week	Never
Library catalog to search for books and government documents					
Library databases					
Laptop/Ipad borrowing					
Desktop computers					
Course reserves					
Inter-library loan (ILL)					
Reference desk					
Scanner					
Printers					
Quiet study floor (upper level)					
Group study rooms					
Collaborative space (lower level)					

7. Rate your satisfaction with the following library services and spaces:

	Very unsatisfied	Unsatisfied	I have never used this service	Satisfied	Very satisfied
Library catalog to search for books and government documents					
Library databases					
Laptop/Ipad borrowing					
Desktop computers					
Course reserves					
Inter-library loan (ILL)					
Reference desk					
Scanner					
Printers					
Quiet study floor (upper level)					
Group study rooms					
Collaborative space (lower level)					

8. Please feel free to elaborate on any services and/or spaces that you are dissatisfied with:

9. Please rate the overall satisfaction of the physical library space:

	Very unsatisfied	Unsatisfied	Satisfied	Very satisfied
Lighting				
Temperature				
Seating				
Electrical outlets				
Capacity				

10. Do you prefer to study alone, in a group, or both?

- Alone

- In a group

- Both

11. If you like to study in a group setting, would any of the following be useful:

- I don't like to study in a group setting

	Yes	No
Moveable furniture		
White boards and dry-erase markers		
More study rooms		
Technology		

- Suggestions?

12. Would a small private room to have a virtual meeting and/or study (Skype, FaceTime) be useful?

- Yes

- No

13. Do you print from the library desktops, your own laptop, or both?

- Library desktops

- My laptop

- Both

14. Would a print only station be a beneficial addition to the Library?

- Yes

- No

15. Do the mobile technologies provided by the University of New Haven library meet your needs?

- Yes

- No

- If not, please suggest ways to improve:

16. Do you use the battery packs available at the Reference Desk to charge your mobile device or tablet?

- Yes

- No

17. Do you use the charging station at the Library to charge your mobile device or tablet?

- Yes

- No

18. Have you ever used a QR code (example below)?

- Yes

- No

19. Does your mobile device have a QR code reader?

- Yes

- No

20. If so, what mobile device do you use? (Fill in the blank)

- _____

21. Do the programs and applications available on the library's desktops meet your

academic needs?

- Yes

- No

- If not, what programs and applications should be included on the desktops?

22. How often do you use Ebsco Discovery Service (EDS - the search box on the library

homepage) to search the library's resources?

- Every time I research

- Occasionally

- Never

23. How satisfied are you with the results?

Very unsatisfied	Unsatisfied	Satisfied	Very satisfied	I don't used Ebsco Discovery Service

24. If these options were available, how would you prefer to contact a librarian for help?

	First preference	Second preference	Third preference	Fourth preference	Last preference
In-person					
Email					
Instant messaging service					
Phone					
Social media					
Blackboard					

25. Would it beneficial to have a self-service for Inter-library loans that would allow you to login to the system and directly request, track, and renew multiple needed materials?

- Yes

- No

26. Which format do you prefer to use to read a book?

- E-books

- Hardcover

- No preference

Appendix B: Question 30 Explanations

159 Respondents

Count	Percent	
2	1.26%	-
1	0.63%	.
1	0.63%	1-Group study room are great idea however we can here the other rooms as like the are sitting with us which make it useless because you cannot foucs. 2- the apper level is very good but the outlets are limited which is a big problem
1	0.63%	All services are great.
1	0.63%	All the Services at the library seem excellent.
1	0.63%	Although i understand its a group study room but i feel the mid level atleast should have some limitations on moving around the chairs and forming groups in the small space
1	0.63%	Book search database must me improved
1	0.63%	Can the desktops please be updated with the latest browsers and plug ins to run our files? Also can some special software be downloaded into some of the computers. A lot of engineering programs are essential to our class and we can't always get a copy for our laptops. Please try to have workable printers and scanners as they break down a lot.

		Collaborative space - Few students talk too loudly, don't mind people talking but joking around loudly, yelling sometimes is too much.
1	0.63%	Library Desktops are nice, but need to be on latest windows and add coding softwares. NEED Comfortable chairs, sofas in some more places. Need a relaxing room
1	0.63%	Cost of printing is awful!
1	0.63%	Could use more desktops
1	0.63%	course books are not available
1	0.63%	Course reserve books are very less in quantity. Very few students get toborrow a text book from the course reserve.
1	0.63%	Desktop conputers are extremely slow and many are broken
1	0.63%	Don't have any!
1	0.63%	Electrical outlets are the biggest problem
1	0.63%	Everything is good!
1	0.63%	Expand range of inter library loans
1	0.63%	Figuring out how to pay for using the copy machine is difficult
1	0.63%	For group rooms: they are helpful but when your in them the rooms next to you are extremely loud and it makes it not worth it to even sign up Upper level: more outlets near desk...also allowing food would be nice as when I'm there I'm usually there for at least 6 hours with out leaving so I'm bringing snacks
1	0.63%	free printing!!!!!

1	0.63%	Great library.
1	0.63%	I am extremely unsatisfied with the upper level quiet floor. It looks like something from the 1950s. Barely any outlets to plug in your laptop. Old school desks and chairs. And barely anywhere to sit. I went to UConn for undergrad and although it was so much cheaper to go there, UCONN had a great library for students to study and get things done. I hate coming to UNHs library so much that I go to another university's library instead that has better furniture, outlets, and space. I shouldn't have to do that if I'm already paying tons of money to go here. We pay so much more and I'm surprised that this library is still so outdated. PLEASE renovate this. PLEASE and thank you.
1	0.63%	I am not dissatisfied with anything
1	0.63%	I am not dissatisfied with the quiet study floor. I just think it needs to be updated along with along more opportunities to charge laptop up there. If I can find an open outlet then I most likely don't stay on the floor.
1	0.63%	I believe there should be a rule that you if you are going to listen to music while studying or doing homework you should not be on the silent floor. I am up there almost every day and I cannot count how many times I can hear the overflow from someone blasting music in their headphones from the other side of the library. It's very distracting and deffeats the purpose of it being a silent floor. If

they're going to listen to music why do they need to be in the silent floor?

1	0.63%	I don't think the printing system is very efficient
1	0.63%	I don't understand why we can't eat downstairs at the collaborative space (lower level). It is always very loud down there, but that's understandable since it's the collaborative space.
1	0.63%	I enjoy having a space dedicated to quiet study, but there a very few outlets to charge devices, so I can never stay long if I'm using the space to work on my laptop. The desks are too close together to be comfortable, and too small to spread out with notebooks and books comfortably.
1	0.63%	I have a mac and would like to print in color.
1	0.63%	I have never used the library. With classes being at night, I usually go from work to class. The handful of times that I have worked on projects on campus, I have gone to Bartel's with classmates.
1	0.63%	I like the lower-level but wish that we were allowed to eat down there. I stay there for hours at a time and find myself needing a snack. The upper level (quiet section) needs more outlets and lighting at the desks.
1	0.63%	I mean sometimes all the desktops upstairs are in use, but that's understandable.

1	0.63%	I think that the course reserve system could be a bit better, because the stacks are not very organized.
1	0.63%	I think the group study rooms could be greatly improved by becoming sound proof.
1	0.63%	I think the library would benefit from a third floor remodel - more desks with outlets at each
1	0.63%	I think there needs to be more outlet services on the quiet floor
1	0.63%	I think you should have vending machines selling snacks and drinks for those studying after hours. It would be very helpful.
1	0.63%	i use the LCR
1	0.63%	I wish the library lighting on the quiet floor was better. I understand that they are motion sensored however when I am writing a paper or doing work for a long period of time I hate having to keep getting up and walking around so that the lights turn back on. I sometimes find the library to cold and always have to make sure I pack extra layers when I am going there. Lastly I wish there were more outset on the quiet floor or maybe attached to each cubicle.
1	0.63%	I wish there was more space in the collaborative level
1	0.63%	I wish there was some computers that are only for printing, because sometimes I just need to print something really quickly, but there will be no open computers. Also, most of the time the Mac desktops don't work (cannot log in) or they are not connected to the printers.

1	0.63%	I wish there were computers specifically designated for those needing only to print documents
1	0.63%	I wish there were more outlets available in the upper level, quiet section of the library. It's very difficult to find a seat next to an outlet and the spots on the main level near the desktop computers are usually full. I also wish there were more empty spots without desktops on that main level since those usually fill up quickly.
1	0.63%	I wish there were more study rooms that an individual could sign out that had white boards and stuff. If I want to study alone then I can't use the rooms in the back of the first floor, even if they are empty. Also a way to sign out the room online would be really helpful.
1	0.63%	I wish we had a greater range of databases & journals.
1	0.63%	If even the photocopy machine be used by swiping ID card
1	0.63%	If I am going to get kicked out of Buckman at 1 in the morning and I am told to go to the library. I expect the library computers to offer the necessary programs for me to do my work. Currently the library does not even offer Microsoft publisher let alone STAAD Pro or ANSYS.
1	0.63%	If in quiet study floor, each desk can contribute one plug for laptop, that will be awesome. Sometimes, I (or most of people) don't wanna sit there cause there is not plug for laptop.

1	0.63%	If possible, it would be great if outlets were made available on the quiet study floor, because sometimes I do need to charge my laptop when using the space. None of the desks that I have seen have outlets near them.
1	0.63%	It bothers me that it is not free to print. This should definitely be included in the price of tuition.
1	0.63%	It is hard to find plugs on the Quiet study floor and people still talk on their cellphones and to each other on this flooe
1	0.63%	It often gets too cold but it's an easy fix with a jacket or sweater Never enough computers
1	0.63%	It will be better if it is big library, whenever I visit at morning and evening time at week days it was full and we did not get space to sit so many times.I had not find so many books of our course of particular author of mechanical branc
1	0.63%	It will be greatfull if you provide elctrical engineering.
1	0.63%	It's very dark and should be updated
1	0.63%	Just that sometimes printers are broken and there is a line when I need to get to class
1	0.63%	Library gets crowded during Finals and midterms
1	0.63%	Lighting in some parts of the library is too dim. Seating at computers can be uncomfortable for students with chronic pain.

1	0.63%	make all the plugs in the lower floor work. install plugs in the upper level. more printers?
1	0.63%	Maybe have stricter rules on the first floor. I know people can talk, but they talk a little too loud
1	0.63%	More comfortable chairs please. Also, the bathroom situation (only one stall on the bottom floor) can be annoying
1	0.63%	More outlets on quiet floor!
1	0.63%	More outlets on the quiet floor
1	0.63%	more power outlets for laptops/devices on quiet study floor
1	0.63%	Most government documents provided are outdated. We need newer up-to-date information to complete assignments for class.
1	0.63%	My only dissatisfaction would be a mild inconvenience that at certain points of the day there are no computers available on the main floor for printing, or that the chairs have been taken by others and not available for use.
2	1.26%	n/a
3	1.89%	N/a
14	8.81%	N/A
1	0.63%	N?A
1	0.63%	NA
1	0.63%	Need more collaborative space to work in group projects
1	0.63%	Need more outlets for the desks in the upper level quiet study floor.

1	0.63%	Need more scientific journals, especially marine related!
1	0.63%	Need usage instructions on printer. No privacy as anyone can see what is on the print queue.
1	0.63%	Never seem to be enough computers open to use. And the lower level can get extremely loud but no one ever nullifies the noise
1	0.63%	no nothing
1	0.63%	NONE
1	0.63%	None come to mind
1	0.63%	Not enough rooms to lounge and read a book in.
1	0.63%	Not enough space, desks, or laptop charger plugs for the amount of students
1	0.63%	Not enough table and seats downstairs
3	1.89%	Nothing
1	0.63%	Nothing except interlibrary loan
1	0.63%	Often times there wasn't a desktop available, and I had trouble figuring out how to print from the printer and swipe and pay.
1	0.63%	Our online databases are really lacking when it comes to science journals.
1	0.63%	Please make the group study rooms open later
1	0.63%	Printers are always breaking and not reliable.
1	0.63%	Printers are always broken and sometimes will not print but will still charge you anyway

1	0.63%	Printers are broken a lot and printing color is expensive
1	0.63%	Printing should be completely free.
1	0.63%	Quiet floor bathroom. Toilet I used today was covered in hardened urine and water. Had to clean it off myself. Also, the quiet floor could also benefit from more outlets so that every desk by the windows can have a power supply.
1	0.63%	Quiet floor could use more outlets. I'd Ben more likely to spend more time up there and actually be productive with more outlets
1	0.63%	Quiet floor needs more outlets for your laptop/electronics. Very hard to get work done when your laptop needs to be plugged in. There simply aren't enough group study rooms available, especially during midterms/finals. And you can hear other groups in nearby rooms which is very distracting. The collaborative space is too small, and you should be allowed to bring food/drink in there.
1	0.63%	Quiet study floor has not much plug point to charge a laptop.
1	0.63%	Regarding desktop computers, I believe it would be beneficial to have more usable desktops in the quiet study section. The lower level tends to be noisy and disorganized with multiple student crowding around one computer at a time.
1	0.63%	Some desktop computers take very long to start and some don't even connect to the internet. It can be very frustrating when I only need the computer to print something.

1	0.63%	some of the computers have connection problems and then it's hard to find another available one because there are not enough during prime time library hours
1	0.63%	Sometimes 1 printer will be down and it causes long lines for printing. Also some computers are really slow sometimes.
1	0.63%	Sometimes the articles I'm looking for cannot be found in the databases or just the abstract is available.
1	0.63%	Sometimes the color printer dont work.and even scanner
1	0.63%	Sometimes the computers are really slow
1	0.63%	The cafe should be open later, especially during finals.
1	0.63%	The catalog is hard to use and I could not find many books on the library for my history paper. I had more luck at other libraries.
1	0.63%	The catalogue and database searches are not i tuitive or easy to use by any means. There is very limited selection and the selection we do have is very out of date. The computers are not routinely updated and the programs on them are not consistent i.e. Photoshop 2015 on one computer, photoshop 2014 on another computer, and no photoshop at all on yet another computer.
1	0.63%	The chairs on the upper level aren't the most comfortable and it's difficult to find a receptacle to plug my laptop charger into. Also, the private work areas are a bit wonky.

1	0.63%	The Computer space, where the charger cafe is, is nice but way to loud and disorganized. People get into groups crowding computers not being used. Sometimes it even has a wierd smell, I guess people eat when they are not allowed to. Rules are not being followed.
1	0.63%	The computers are hella slow
1	0.63%	The computers are slow sometimes.
1	0.63%	The desktop macs have a tendency to not work right with logging in and this is a problem.
1	0.63%	The electric outlets on the tables in the basement often don't work. Along it hard to do work if I can't charge my laptop
1	0.63%	The group study rooms are not sound proof and it is very easy for noise to travel from one room to another. The printers are frequently out of order which is annoying and inconvenient.
1	0.63%	The groups study rooms are not very quiet so that you can work with your partners effectively. It sounds like the people in the next room are in the same room with you and the sound echoes so its very hard to concentrate when trying to study/collaborate.
1	0.63%	The library computer is always crowded and half the time people aren't working and the mac computers aren't as good as the others
1	0.63%	The library is great and I have no complaints about it. My only issue is I ran out of printing cash (only printing stuff for class) and I wish I had some more at the start.

1	0.63%	The lower level is very nice.
1	0.63%	The lower level of the library is always unreasonably loud. I understand that talking is allowed but often times people are yelling back and forth, blasting music, and being rude.
1	0.63%	The printers don't work at times.
1	0.63%	The printers sometime are not enough for everyone
1	0.63%	The quiet floor does not have anywhere to plug your laptop into. It needs outlets. Also there should be a second floor with tables, not just desks that is a quiet floor but not as strict at the top floor. The library only has a loud section and a quiet section, there needs to be an inbetween.
1	0.63%	The quiet floor should have MORE outlets for charging devices.
1	0.63%	The quiet section always seems to have people talking in it, which is very distracting. The group study rooms are nice but not sound proof, you can hear into the room next door, and it is also sometimes hard to book a room in advance. The printers seem to break a lot and it is sometimes annoying having to wait in line for one printer.
1	0.63%	The quiet study floor doesn't have outlets for laptops
1	0.63%	The rule about no food is stupid. No one follows it and I personally will not comply.
1	0.63%	the scanners are often not working, the toner in the printer gets low and my assignments print out very light and I cannot hand them in

like that..this issue is very frustrating. The quiet study floor is nice but there aren't enough outlets. I have to relocate when my computer, tablet or phone dies and I hate that I can't stay in the spot I like because there are no outlets around there. Unsatisfied with the group study rooms because if the other rooms next to you are in use, you can hear everything, and I mean everything the group study rooms are not sound proof and they should be, it gets so loud that I can hear conversations from outside the room while i'm at a desktop computer.

1	0.63%	The study rooms are very noisy and you can hear the rooms next to you talking, no matter what.
1	0.63%	There are a lot of journals for Marine Biology that are not available for students to access. And if there is access to a journal, then it is only for a select few years.
1	0.63%	There are not enough computers for everyone to print from, I wish there was a way to bring in my personal laptop to attach it to the printer and print so I didn't have to rely on a library computer being free to print something.
1	0.63%	There are not enough electric outlets to charge your computers in quiet study area in the third floor, also it gets really cold during the winter it gets really cold because some of the blinds are broken. I am very unhappy that the university is not subscribe to major science journals.

1	0.63%	There are not enough electrical outlets on the quiet floor
1	0.63%	There is a table downstairs on the first floor that has outlets on the table that doesn't work. A fix for that would be great. And if that issue has been addressed: thank you very much.
1	0.63%	There need to be more outlets upstairs so more people can use the space. If you stay late in the library late at night because it is still 24 hours the temperature of the lower level can get kind of cold unless you know this you will get quite cold and will really wish you had a blanket to help keep you a little warmer. Also, you can really feel a draft when you sit by any window, which makes focusing on your work kind of hard. It is also sometimes hard to find a place to sit due to a lot of people using the library.
1	0.63%	There should be more outlets available on the upper level of the library so that we can work on our laptops wo worrying about it running out of batteries
1	0.63%	They all satisfy me
1	0.63%	They could provide more information and reduce waiting time
1	0.63%	walls in the group study rooms are so thin that is impossible to work when another group is being too loud
1	0.63%	We need more printers, a lot of the times the printers are down or they are all being used

1	0.63%	We should be allowed to eat on the lower level. Also the desktop computer spaces need to be cleaned and wiped down every once in a while. The keyboard are dirty and when moved there is always crusty dirt underneath
1	0.63%	When the printers are broken, it is really difficult to get pinting done on time. It is also difficult when the computers are not updated to the correct word office.

Appendix C: Question 37 Explanations

Count	Percent	
1	9.09%	Comfortable chairs
1	9.09%	Food
1	9.09%	More comfortable chairs
1	9.09%	More smaller tables like in the cafe
1	9.09%	Projector to practice presentations
1	9.09%	silence
1	9.09%	Sound proof group study rooms
1	9.09%	tables
1	9.09%	WHITE BOARDS
1	9.09%	White boards and markers would get ruined within a month. Bad idea.

Appendix D: Question 41 Explanations

Count	Percent	
1	1.72%	Android and Apple charging stations and better log on systems for printing. I should not have to enter my ID number. Then present my student ID card afterwards.
1	1.72%	Databases are sometimes difficult to use and not user friendly.
1	1.72%	don't know, I've never used it
1	1.72%	Find a program to allow macs to print, increase outlets, and update printers/ computers.
1	1.72%	Have better ways to connect to library computers and to advertise how to do it
1	1.72%	I am not entirely sure what is meant by this question
1	1.72%	I can't download the printing software so I have to go find a computer to print from.
1	1.72%	I do not know what these mobile technologies are.
1	1.72%	I do not know what these technologies are
1	1.72%	I don't know what 'mobile technologies' are being referenced here.
1	1.72%	i don't use the library much
1	1.72%	I think that we should have a mobile printing app.
1	1.72%	I wish I could print from my laptop
1	1.72%	Is there a way to download some network to print in the library from your laptop?

Count	Percent	
1	1.72%	Laptop printing doesn't ever work correctly
1	1.72%	Laptops are laughably old and the headphones are from the stone age. Supply more updated technology and charge students that damage or lose it the cost of replacement parts or devices.
1	1.72%	Laptops frequently do not work
1	1.72%	n/a
1	1.72%	N/A never used mobile technologies
1	1.72%	NA
1	1.72%	Need app to book study rooms, check books, book a book for a pick up, have more ebooks, its 2017!!!, Maybe place NFC tags around so that a mobile user can tap and search for info.
1	1.72%	Need engineering programs such as solidwords, labview, C programming, or CAD on library computers
1	1.72%	Never needed to use them
2	3.45%	Never used them
1	1.72%	Never used UNH mobile technologies
1	1.72%	The databases are very limited and need to be increased
1	1.72%	The databases cover most of student needs, but a lot of good articles are on wiley online, springer, or elsevier and we don't have access to them

Count	Percent	
1	1.72%	The printers frequently need improvements. I think it would be beneficial to have a 15 minute maximum print only station. It's annoying and inconvenient to try to find a desktop and printer in the middle of the day when I just need to print 2 pages and I don't have the drivers for the library printers.
1	1.72%	There is not enough
1	1.72%	To my knowledge, there are no mobile technologies provided by the UNH library. However, the mobile charger stations are a very nice addition to the library.
1	1.72%	too slow
1	1.72%	Updated laptops.
1	1.72%	What mobile technologies..?
1	1.72%	Wireless printing is very unreliable and I end up just logging in and printing on a desktop.

Appendix E: Question 44 Explanations

Count	Percent	
4	1.75%	android
7	3.07%	Android
1	0.44%	apple
2	0.88%	Apple
1	0.44%	Apple (Snapchat)
1	0.44%	Apple iPhone
1	0.44%	Apple iPhone 5s
1	0.44%	Barcode Scanner
1	0.44%	Cell Phone
1	0.44%	Cellphone
1	0.44%	Droid maxx
1	0.44%	Droid Turbo
1	0.44%	Droid Turbo II
1	0.44%	galaxy s6
1	0.44%	galaxy s7
1	0.44%	Galaxy S7 active
1	0.44%	Google Pixel
1	0.44%	HTC phone
1	0.44%	I don't actually know but I have an iphone
2	0.88%	I phone

Count	Percent	
15	6.58%	iphone
60	26.32%	iPhone
26	11.40%	Iphone
1	0.44%	I-phone
2	0.88%	IPhone
1	0.44%	IPHONE
1	0.44%	iPhone - I downloaded an app to scan them
1	0.44%	iPhone (Snapchat)
1	0.44%	iPhone 4
1	0.44%	iPhone 5
1	0.44%	iPhone 5s
1	0.44%	iPhone 5S
2	0.88%	Iphone 5s
1	0.44%	iphone 6
4	1.75%	iPhone 6
1	0.44%	iphone 6s
3	1.32%	iPhone 6s
2	0.88%	iPhone 6S
1	0.44%	Iphone 6s
1	0.44%	iphone 7
4	1.75%	iPhone 7

Count	Percent	
1	0.44%	Iphone 7
1	0.44%	Iphone 7 plus
1	0.44%	iPhone snapchat
1	0.44%	iPhone6+
1	0.44%	LG G2
2	0.88%	LG G5
1	0.44%	Lg v10
1	0.44%	LG V20
1	0.44%	LG v20
1	0.44%	Moto E
1	0.44%	Moto G
1	0.44%	Moto g4
1	0.44%	My phone
1	0.44%	Nexus 6
1	0.44%	OnePlus 2
2	0.88%	phone
2	0.88%	Phone
1	0.44%	phone app
1	0.44%	phone, snapchat
1	0.44%	Pixel
1	0.44%	samsung

Count	Percent	
1	0.44%	Samsung
1	0.44%	samsung galaxy
2	0.88%	Samsung Galaxy
1	0.44%	Samsung Galaxy 7
1	0.44%	Samsung Galaxy J320 P
1	0.44%	Samsung Galaxy S5
1	0.44%	Samsung galaxy S6
1	0.44%	Samsung Galaxy S6 Edge
2	0.88%	Samsung Galaxy S7
1	0.44%	Samsung Galaxy S7 Edge
1	0.44%	Samsung S7 Edge
1	0.44%	smart phone
1	0.44%	Snapchat
1	0.44%	Snapchat on iPhone
1	0.44%	Snapchat on my cell phone
1	0.44%	xiomi-redmi note 3
1	0.44%	You can download one from the app store
1	0.44%	zte phone

Appendix F: Question 45 Explanations

Count	Percent	
1	2.00%	Access
1	2.00%	Accidentally answered above but engineering programs such as Solidworks, CAD, LabView, C programming, CATIA, etc. Buckman closes at a certain time and I need those programs in full, not just student versions available to me.
1	2.00%	Adobe creative cloud programs
1	2.00%	Adobe PDF editor
1	2.00%	Adobe Photoshop
1	2.00%	Adobe photoshop and other adobe programs
1	2.00%	Adobe photoshop should be added to library computers
1	2.00%	All computers should have ArcMap. The ones in the CLR that are supposed to have them are inconsistent - some have them, others have expired licenses.
1	2.00%	All the Macs should be updated to the latest MacOS and the Dells should have their Microsoft Office applications updated because whenever I use Word, a update notification pops up.
1	2.00%	ArcGIS
1	2.00%	ArcMap 10.31 is missing from the CLR computers
1	2.00%	As stated before some don't have all the programs on them. A basic code editing software would be nice like brackets, codeblocks, etc

Count	Percent	
1	2.00%	CodeBlocks, Pycharm, Python
1	2.00%	course books are not available
1	2.00%	Engineering books
1	2.00%	Engineering programs such as: solidworks, autoCAD, LabView, etc.
1	2.00%	Food Processor
1	2.00%	Full Adobe Suite (not all have it)
1	2.00%	Have a couple computers with engineering programs (LabView, Ansys, Chemcad, etc) because students get kicked out of Buckman rooms at night
1	2.00%	Logic, Pro-Tools
1	2.00%	minitab, tabeau, R programming
1	2.00%	Multisim 13.0
1	2.00%	not all of them
1	2.00%	Once I needed to use iMovie for a project and I do not have a mac so I went to the library but unfortunately none of the macs have iMovie there
1	2.00%	photoshop
1	2.00%	Programs necessary for engineering curriculum
1	2.00%	Publisher, STAAD Pro, ANSYS, AutoCAD, GIS, etc.
1	2.00%	R and RStudio
1	2.00%	R, RStudio

Count	Percent	
1	2.00%	R, SPSS, GIS, Past3, RAMAS
1	2.00%	smart draw
1	2.00%	Smart draw or a similar program for room/crime scene layouts
2	4.00%	Solidworks
1	2.00%	some engineering programs would be nice
1	2.00%	Some of the adobe applications were not up to date and I had a problem working on premiere pro for a class project
1	2.00%	Sometimes Microsoft word is not up to date, which makes quickly printing difficult.
1	2.00%	SPSS
1	2.00%	SPSS is unreliable on the desktop computers
1	2.00%	The desktops are incredibly slow. Especially if you are just trying to print. They're not always available either.
1	2.00%	The SPSS does not always work on the upstairs computers. Some work and some do not.
1	2.00%	There should be security software like Norton Endpoint Security available to students for personal use. Daemen College has that.
1	2.00%	They kind-of do. ArcGIS has been the only program I've used in the library, and when I did it hadn't been updated to the newest version, which was on the computers in charger plaza. It also is annoying that when the computer lab in charger is in use, the professors don't let us

Count	Percent	
		stay in the lab and the only other place to find this program is on the few computers in the computer lab.
1	2.00%	Virtual desktop has not been working
1	2.00%	zotero