Photographic Space Survey

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Introduction

Houff perpetually strives to provide the best services and learning environment for our students and staff. With the upcoming renovations pending, we thought this the perfect time to elicit feedback from our users to find out what our space does well, and areas in need of improvement. While some renovations may not occur for some time, baseline information will give us a starting point when discussing any changes, as well as give us something to compare to future information.

We designed a survey to assess patron attitudes about the library and its space, but after some deliberation decided that asking patrons about how they used Houff’s physical space would be better replaced by a separate photographic study. We wouldn’t waste our students’ time with questions we could discover the answers to on our own.

Methods

In preparation for the photographic study, a floor plan of the library was compiled based on a modified version of a previous floor plan. The plan was used to assign sections of seating based on proximity and shared characteristics. Then, each seating area was assigned a number to identify it in the photographs. We also made a small sign explaining the study that was posted at the reference desk for the duration of the week. The sign promised students that any identifying photographs would not be published. This appeared to not be a concern for students: several requested that we upload the photos to Facebook, and many others posed when we made our rounds.

During the week of November 18-22, 2013 we took digital photographs of students in the Houff student center. Each day, one of two staff members snapped photographs of all students sitting at library tables or study carrels at 10am, 11am, 12pm, 1pm, 2pm and 3pm. We chose this abbreviated schedule knowing these were the library’s highest traffic times.
After the week concluded, photographs were compiled and formatted to ease comprehension. Photos are organized by the date and time they were taken, and given appropriate file names to hinder confusion. The file name 1122.14.2, for example, is the second photograph taken at 2pm on November 22. Then, photographs were labeled with the number of the table or carrel where students were sitting.

Seat numbers are equally meaningful. Each table gets a three-digit number. The first digit indicates the section of the table, so all tables with numbers that begin with one are in the same area. The second digit indicates the type of table, so that without seeing the table you know what kind it is. The third digit is a unique identifier, beginning with 1 and ending with zero.

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<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Rectangular Table</td>
</tr>
<tr>
<td>2</td>
<td>Round Table</td>
</tr>
<tr>
<td>3</td>
<td>Coffee Table with Comfortable Chairs</td>
</tr>
<tr>
<td>4</td>
<td>Study Carrel, in pair</td>
</tr>
<tr>
<td>5</td>
<td>Study Carrel, in trio</td>
</tr>
<tr>
<td>6</td>
<td>Study Carrel, in quad</td>
</tr>
<tr>
<td>7</td>
<td>Bench</td>
</tr>
</tbody>
</table>

The color of the number indicated the number of students observed sitting there. Red numbers indicated one student, blue two, green three, yellow four and orange five. Numbers were added to the pictures to make the information more visible from the small thumbnail of the image, and to have a definitive choice made in the image itself in cases where inferences were made. The pictures were then reviewed and data entered into an excel spreadsheet. Where patrons sat in the same seat for more than an hour, a comment was inserted into the cell with a note.
The first digit was the number of people, and the second was how many hours they sat there consecutively. If one person sat in the same place for three consecutive hours, the comment might look like this “1.3”.

**Results & Discussion**

From the data we collected, we were able to glean total occupancy statistics during our peak times. This information is helpful, but not of the utmost importance as we have been counting patrons hourly, even during our slower times. More importantly, we were able to view where patrons sat, and how long they sat there. Unsure of the validity of such an effort, we were pleasantly surprised to be able to observe patterns in patron seating behavior, even before we finished collecting data. While we found the exercise valuable, in its absence even a closer look at patron behavior can reveal large trends over a short period of time.

Some of our results were expected: students appear to gravitate to the large windows that make up the north facing wall of the Houff student center, and to the quiet area in the back of the library where the popular periodicals are kept. Other findings were quite surprising; students seemed to downright avoid section eight, the section of tables and cubbies surrounded by computers. We can theorize about why students do not use this space, but the fact remains there are better uses for it than remaining empty even during our busiest times.
A brief, though incomplete, look at patron use of our computers during peak hours suggests that computers are a popular feature of the library’s physical space. Four times during the week, all of the computers at one of the stations were in use, suggesting that more computers in the library may be a viable investment. Patrons appear to use the computers in the back room more heavily than the front 8, but our results are not entirely enough to assume the back computers are always preferred; it may be that patrons prefer the front 8 computers for quick tasks on their way to class while patrons sit longer at the back computers, and are thus more likely to appear on the graphs.

Limitations

Our study does suffer from a few limitations. Because photographs were only taken once an hour, we don’t have data about the intervening times. Our information about how long students remained in a seat are estimates. Additionally, the quality and angle of the some of the photographs was poor and estimates were made to determine where patron where sitting, and if the same student was occupying the seat the previous hour. In cases where it was unclear, we estimate that the same student was occupying the seat whenever it was possible or probable. For this reason, it is possible that our figures about the length of students’ stays in the library are slightly high, but we feel they are accurate enough to draw informal conclusions.

It was not clearly agreed before beginning to take photographs if students at computers would be photographed. Only one of the photographers routinely took pictures of student sitting or standing at the front bank of computers, and neither photographer took pictures of students sitting at computers in the back room, though we do have numerical data from that time that counts students at computers in both areas. We have compiled data showing the percentage of students at the front eight computers versus the back room, but it is likely not completely accurate.
Conclusion

The results of this study are very specific to our population of library-going students at Blue Ridge Community College, and it would be dangerous to extrapolate them to any other setting. However, the format of photographic study, with clear communication, is a time and cost effective way to collect data about how patrons currently use library space. We found that this process made patterns visible that were otherwise hidden from us, and we will use this information in our future plans.
During the week of November 18-22, we are photographing the library to determine how students use library space. These photographs are part of a larger initiative to ensure that the library meets the learning needs of our students.

Our students’ safety is our top priority, and photographs with any identifying features will not be released to the public or used outside the bounds of this study.

We thank you for bearing with us during this time.
Appendix B: Floor Plan
Library Occupancy by Day

<table>
<thead>
<tr>
<th>Day</th>
<th>Occupancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>135</td>
</tr>
<tr>
<td>Tuesday</td>
<td>211</td>
</tr>
<tr>
<td>Wednesday</td>
<td>275</td>
</tr>
<tr>
<td>Thursday</td>
<td>217</td>
</tr>
<tr>
<td>Friday</td>
<td>33</td>
</tr>
</tbody>
</table>

Library Occupancy by Section

- Section 1: 8 (35%)
- Section 2: 7 (13%)
- Section 3: 6 (17%)
- Section 4: 5 (6%)
- Section 5: 4 (7%)
- Section 6: 3 (10%)
- Section 7: 2 (11%)
**Occupancy vs Capacity Average**

- **Seats Filled**
- **Seats Available**

**Section Capacity Average**

- **Seats Filled**
- **Seats Available**

Truncated for visibility.
Length of Patron Stay: Day Comparison

Monday: 90% 1 hr, 10% 2 hrs, 0% 3 hrs, 0% 4 hrs, 0% 5 hrs, 0% 6 hrs
Tuesday: 90% 1 hr, 10% 2 hrs, 0% 3 hrs, 0% 4 hrs, 0% 5 hrs, 0% 6 hrs
Wednesday: 90% 1 hr, 10% 2 hrs, 0% 3 hrs, 0% 4 hrs, 0% 5 hrs, 0% 6 hrs
Thursday: 90% 1 hr, 10% 2 hrs, 0% 3 hrs, 0% 4 hrs, 0% 5 hrs, 0% 6 hrs
Friday: 90% 1 hr, 10% 2 hrs, 0% 3 hrs, 0% 4 hrs, 0% 5 hrs, 0% 6 hrs
Computer Occupancy

Computer Occupancy: Monday

[Bar charts showing computer occupancy for different days and times, with labels for 'Monday', 'Tuesday', 'Wednesday', 'Thursday', and 'Friday' on the x-axis, and 'Front 8' and 'Back Room' on the y-axis.]

Photographic Space Survey
For additional charts, see data file.