Desk Observation

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Executive Summary

This document details the findings of 22, hour-long observations undertaken to collect data and form the request for a new circulation desk. The study uncovered the following themes:

- **Lack of patron engagement** - as circulation staff sit away from the counter, patrons often are confused about who to go to and tend to queue at one station even if other staff are free. Engagement was also hampered by the height of the counter and position of a pillar relative to the staff desks.
- **Compartmentalization** – frequently, patrons were bounced from one station to the next to complete a task. This was usually related to returning items and technology storage locations. Additionally, staff had long walks to highly used items.
- **Activity** – the most frequent activity at the desk was for reserves and technology checkouts. The flow of patrons was not even. Intense activity was followed by nothing. No pattern was found that would suggest a “normal” activity level.
- **Technology** – many different types of technology are circulated at the desk and this often leads to long trips, bending/stooping, and rummaging. These items are also in high demand, particularly laptops.

Given these themes, we recommend the following for a new desk configuration. An alternate, primarily cosmetic, plan is also included. Both plans are available in a larger size at the end of this report.

Figure 1: Major Upgrade

This new design will afford the following improvements:

- Position students at the desk to initiate engagement faster and improve line of sight.
- Centralize equipment and books to provide better access to the most commonly used items.
- Provide expanded storage for items allowing for continued growth in technology offerings and reserves holdings.

The costs for the major change, not including the construction, would be approximately $19,614.77. For the minor it would be $21,134.78.
Introduction

Circulation is the only service area on the first floor which has not been updated. The checkout desk is dated, not ADA compliant, and the staff side is a hodge-podge of items pieced together over the years (figure 2). Plans have been drawn up to change the layout of the desk, but none have come to fruition. When the new Director was hired, both the Dean and the Access Services staff expressed a desire to once again try to redesign the desk. This report details the efforts to understand the needs of staff and patrons at circulation. Those issues were then used to create a new design. The following research questions guided the study:

- How can the flow of work at the desk be improved?
- What is the nature of patron movement to and around the desk?

Method

To examine our research questions, we performed observations of the desk. During 22, hour-long sessions, the Circulation Manager, a graduate student supervisor, and the Director of
Access Services tracked patron and staff movements as well as made extensive notes on the activities they performed. To choose observation times we used a random number generator to select a day of the week between Sunday and Thursday (when the majority of patron interactions occur) for the beginning, middle, and end of the semester. Times were also chosen using a random number generator to select times for morning, afternoon, evening, and night. The dates and times we matched down the list. This generated a significant pool of observation times that was then decreased to ten for each staff member and four for the graduate student based on availability. Two of these 24 observations had to be cancelled.

During the observations, the researchers used one of two templates that included a layout of the area and a section for notes. One template was for observing staff movements, the second for patron movements. Observations followed a standard timeline; ten minutes for tracking movement, five minutes for writing notes (repeated two more times), and a 15-minute general observation period. Researchers were instructed not to interact with staff or patrons. Only record events. We tracked patron movement using colored pencils and the provided floorplan. The observer would choose a patron who appeared to be heading in the direction of the circulation desk and would draw their path from first sight until they left the line of sight. This process was repeated for the next person using a new color. Staff movement was tracked similarly using multiple pencil colors to indicate a specific staff person’s movement. After their observation was complete, investigators placed their template in the Director’s mailbox and she scanned, named, and uploaded them to a password protected shared drive. To determine themes, we transferred all notes into a spreadsheet. Along with the note, the observer, time, date, and observation type were recorded by the transcriber.
Findings

The observer notes provided the most information and are the basis of findings. We reviewed these notes informally and agreed on four themes: patron engagement, compartmentalization/bouncing, activity, and technology.

Patron engagement

This theme was the largest group of comments. Of this group, how patrons approached the desk and chose a station was a large portion. From these comments we created a patron interaction model (figure 3). One comment was indicative of the Searching patron, “Patron approaches whoever is standing or waits behind patrons in line if a staff member does not see or acknowledge them. Patrons do not initiate dialogue or ask for help.” This searching action can also be seen in eye contact between the patron and the observer. One noted that “all patrons make eye contact with me at back of circ area when they first approach”. All the observers mentioned during their discussions of the findings that they felt uncomfortable during the observation process because the patron would see them but they could not help. One admitted to having to prompt the staff person to help the patron even though they were not supposed to.

The two other patron types were discovered in the anomalies. Patrons in these groups have unknown motives but can be described as either efficient or familiar. The efficient patron was reflected in many comments similar to “most patrons went to closest computer”. The choice of station seems to have no rhyme or reason other than it requires the least amount of effort. For instance, there were multiple examples of patrons asking questions at the circulation desk about reference or the learning commons. Whether this is ignorance or efficiency is unknown. Efficient patrons do not seem to search out open staff and are willing to wait either in line or at the desk for staff to acknowledge them. The familiar patron, on the other hand, fits into two groups. They are familiar with the services we offer and know which station will get them what
they need. For example, a patron who bought Friends books came to the middle station, which is closest to the cash register, he did not move from that station while the staff person worked. This patron was both efficient and familiar. The other type of patron has a friend who influences their movement. One patron saw a friend working behind the desk and went to that staff member’s station to talk. Other patrons were traveling in groups and stayed with their colleagues. These patrons were willing to wait because they wanted to interact with someone.

Figure 3: Patron interaction model

One aspect that was similar among all groups was muteness. None of the observers recorded a patron asking for help even if they were waiting to be acknowledged. This trait can be a hindrance to staff. Many instances were recorded of the patron waiting unnoticed at the desk while staff worked on other tasks, or were on their personal phone or laptop. This impediment to interaction cannot be solved by remodel alone but needs a policy component.
Other obstacles to engagement can be solved by reorganization, including the physicality of the desk. The current design has desks stationed behind a counter (figure 2). The desks have two main blocks to the line of sight: the counter itself and a structural pillar. Staff desks are sitting height while the counter is standing height. Employees may be looking up from the desk, but often cannot see someone over the counter unless the patron is right next to it. This is especially relevant to the checkout station. The pillar is also an issue. The supervisor’s desk and the student desk have their view obstructed by the pillar, both up close and far away. In one humorous incident a patron and staff were trying to talk around the pillar and neither knew which side to look around. So they were switching sides back and forth trying to see each other.

Due to these obstacles, the staff often play a game of “whose patron is it”. The desks being behind the counter means that staff have to get up to help the patron. Often multiple staff get up to help the same patron and end up having to decide who will help. Frequently, this happens when the supervisor acknowledges the patron from their desk while the student is getting up to help. Some supervisors get around this by prompting the student to help. One calls out “patron” when the student doesn’t see someone waiting

**Compartmentalization/Bouncing**

In conjunction with the engagement theme is the aspect of “bouncing”. This phenomenon occurs on both sides of the desk and is caused by the compartmentalization of the area and the spread of equipment and material across circulation. The layout of circulation frequently has staff making long trips to complete tasks. The hold and reserve shelves are on the perimeter of the area but are frequently accessed by staff. The position of the check in desk makes the simple trip up to the counter roundabout, and makes passing items around the gate frustrating. Patrons were recorded passing their own materials around without asking the staff
first. Perhaps they had seen the staff struggle or realized it was easier to do it themselves. The layout of the desks causes staff to weave around in pursuit of their goal.

No process causes more bouncing or is more spread out than checking out a laptop. First, the staff person receives the request, gets the form, gets a laptop, and comes back to the patron to check it out, and files the form. Each part requires stopping at different area of circulation. The same happens in reverse when returned. The staff takes the patron’s name, retrieves the form, checks in the laptop, puts away the laptop, and files the form. Some employees have workarounds for this. Asking the patron returning a laptop for their last name from the back is popular. Another time saver is keeping a stash of forms at the front counter. This second workaround saves them part of the trip, but only cuts out a few steps. A less popular tactic is to have the patron move down the line of computers to a station that is closer for the staff person to walk to. Bouncing happens for other tech items, such as calculators and chargers. This can be more pronounced when the patron is unsure of which piece of technology they need and staff has to show them options.

Patrons are bounced, not just to save steps for the staff person, but to conduct transactions in the correct place. For example, patrons would try to return their books directly to the staff person and be told to return them to the bin. The check in process is primarily handled by a student at the check in desk. This allows for stamping, form filling out, and routing of items to occur in one place. Patrons who are unfamiliar with the process can end up waiting in line, only to be told to put the items in the bin. Checking in items at the counter can be performed if the patron wants to pay for fines or at the staff’s discretion. However, this can complicate the check in process later down the line and create a loss of information.
Activity

Observations uncovered a variety of activities that go on in circulation. Determining how the flow of traffic influenced those activities is difficult to pinpoint. One area that stood out was in how transactions were divvied up. The worker who was at the student desk received a majority of the work as reported by the observers. There could be several causes for this. The first is the line of sight issues discussed above. This desk (while obstructed by the pillar) is standing height and the person working can see patrons better. Once an employee was at the desk they often stayed there for a while to help patrons who queued up behind the original patron. This queueing effect is true for any staff person who approached the desk, however. So the person at the student desk does not necessarily get the most work; they are just able to see well. Amount of work can also be altered by the initiative of the employee and their coworkers. A sedentary staff and an active check in student can change that balance.

The level and locus of activity at the desk is not easily pinpointed. The most obvious finding was that the first station, in front of the supervisor’s desk, was least utilized. Typically, it was used to relieve long lines or check out books from the stacks. This computer is the only one that is utilized to educate patrons. Staff are not allowed to turn the monitors at other stations. The rule prevents staff from accidently damaging the computer while trying to turn it on its heavy base. The first station has a second monitor that can be used to show patrons how to use the catalog. Less clear was the consistency and volume of interactions in general. There were 20 mentions of slow or no activity during the 22 observations, and three comments on high activity. While this would suggest that the circulation desk is often slow, two factors would put the comments in greater perspective. The first is that observations were conducted in four 15-minute intervals. So the breakdown is more realistically 20:88. The second caveat is that during moments of high activity the observer would be busy documenting patron/staff movements. This
would leave little time, possibly even need, to record high activity. Nevertheless, the observations do not give a solid answer to the density or location of patron interactions.

The types of interactions done at the desk were another interesting finding. Reserves and laptops were often checked out during observation periods. Observers recorded running out of Macs three times. Once they ran out of all computers. Hold requests for reserves were also noted a few times. One observer remarked, “laptops and reserves constantly checked out/in more than any other resource but stacks items check out in multiples [sic]”. These findings suggest that reserves and laptops are an area that circulation should focus on in the desk design.

We cannot forget about regular checkouts. Lending items from the stacks is less labor intensive but often happens in larger volumes, as noted by the observer. A patron only needs one laptop or one reserve book to complete a task, but may need multiple books. Additionally, because these interactions are often routine and require no extra steps, the observers may not have taken the time to note them.

Hovering above the interactions was communication between circulation staff. Supervisors prompted students to help patrons. Students consulted with supervisors to solve patron problems and confirm procedural details. Patrons and other departments called, emailed, or chatted with staff. All employees talked with each other informally about their day or shared interests. With the current widespread layout, staff had to either walk over to the desk or speak across the area. Communication is crucial to running the desk, and the current layout complicates that.

**Technology**

Technology is a small portion of the findings, but has future implications to consider. Many circulation units are adding technology to their circulation material. The University of Cincinnati recently worked with their education department to circulate technology in support of
faculty e-learning initiatives (Alfieri and Stark, 2016). With the addition of the CollabLab and the increasing dependence on technology, our need to circulate technology will grow. We need to plan for this future so that circulation can accommodate expansion of equipment lending.

The theme for technology was “rummaging”. Employees had to dig through different drawers and types of equipment to find the correct one for the patron’s device. While rummaging, the staff had to stoop or bend down to access the items. When they found the right one, they often had to contend with containers, cords, and multiple pieces to check the item out. When returned, staff spent time winding cords before replacing the items. Laptops also had similar problems and staff had to fight with them to return them to the cart. Paying close attention to storage of technology is key to growing this aspect of our holdings.

**Recommendations**

Given the findings, we recommend that the desk be arranged in one of two configurations. The major update would meet the needs of all the findings and set the department up for growth in technology and reserves holdings. The minor update would be primarily a cosmetic upgrade that addresses the main issue of patron engagement and adds some functionality.

**Major update**

The major layout (Appendices A and B) would improve several areas discovered in the observations. First, and most importantly, it would improve patron-staff interactions. By making the counter localized to the front right of the area, it would remove line of sight issues caused by the pillar. Additionally, with staff at the counter, instead of at a desk behind it, it would allow for more immediate assistance. Next, this design contracts the areas where items are stored and puts high-use material closer to the staff. Laptops would be closer to the desk and the forms right next to it. Cellphone chargers can be kept in the drawers between the two student
stations. As a side-effect to these two changes, patron bouncing would likely decrease. The employee may have to move to get equipment, but the patron can stay where they are. Lastly, pushing the desk out increases the footprint of circulation, allowing more space for staff and storage of items. This would also improve spacing between areas to better meet ADA requirements on the staff side.

Secondary changes are to reserves and OhioLINK and the creation of a processing area for check-ins. Reserves are growing and the current space cannot hold them all. By moving them to longer shelves, more items can be stored. Access will also be improved with the removal of the staff desks. OhioLINK shelves have been moved out of the back hallway. This creates a shorter path for retrieval and will remove congestion in the hallway. The new position of the check in desk between the bookdrops gives better access to them and removes the impediment of the desk. With the new book drop in the parking lot coming soon, this position also gives the check in student room to empty the bin and stack books. Staffing at this new station will need to be rethought.

Storage is also improved in this model. Walling off the area between the server room and the pillar gives a framework for better storage options. Also, by creating a new room next to 109, items that were once stored in the server room or Juli’s office can be moved to a dedicated area. This will make retrieval closer and give Juli the privacy she needs to meet with students or work on her tasks with minimal interruptions. As well as open the server room up for future storage needs.

While this model has many positives, there are a few negatives. The first is the loss of a station. The study could not determine a typical level of activity at the desk, nor do I think there is one, so the impact of losing a station cannot be determined. If it is needed, or wanted, a self-
checkout station could be added to alleviate congestion. In that case, an opening would have to
be made in the desk close to the station so staff could come out to address issues. The second
issue is that by decreasing Juli’s office and erecting the bookshelves, the line of sight from her
office to the desk is decreased. She would not be able to see if she is needed at the desk or to
watch the student’s activities.

The budget for this change is detailed below using Demco’s 2017 catalog. It does not
account for construction and labor costs or the need to relocate power/data lines. The grand total
for this version is $19,614.77.

Table 1. Accessories and non-desk storage - major

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$1,074.97

Table 2. Desk pieces - major

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$13,639.84

Table 3. Cabinetry - major

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$4,899.96

**Minor update**

The minor change (Appendix C) has similar improvements to patron interaction. By
removing the desks and stationing staff at the counter, we remove a barrier to interaction. Patron
bouncing in this configuration would also be minimized. With staff located at each station, it would be awkward to move to another. Staff bouncing would remain at a similar level.

Reserves gets a much-needed increase of space in this configuration as well. Additionally, the extra station would allow us to help more patrons at once, with room to handle the beginning of the semester rush, at an overflow station.

Some issues would remain in this layout. With storage located at the end of the area, cameras still in the server room, and laptops at the other end, employees working at the edges of the desks would still take long trips. Line of sight is improved, but the supervisor may find seeing students to the left a bit difficult with the shelving. Lastly, having staff located at the desk takes away a significant amount of at-hand storage. Most would be moved to the cabinets and without the space increase, there would be little room for expansion of holdings.

The budget for this change is detailed below using Demco’s 2017 catalog. It does not account for construction and labor costs or the need to relocate power/data lines. The grand total for this version is $21,134.78.

Table 4. Accessories and non-desk storage – minor

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Table 5. Desk pieces – minor

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Conclusion

This observation uncovered many things which suggest that the current layout is not sufficiently meeting the needs of circulation. Patron interaction is hampered by a number of issues, but mainly the position of the desk behind a desk and line of sight issues. Also, the need to condense the location of supplies was evident. Staff had to make long trips for high-use items and this caused them to bounce patrons from one station to another to save steps. Two items were on the perimeter of the findings. Technology storage was frustrating, but adequate to meet current needs. Future expansion of technology holdings is an area of consideration given trends in libraries. Finally, the activity level at the desk was not conclusive. Findings were not able to identify the general frequency of work done at the desk. From these findings we have developed two desk plans. The major renovation would address all current needs and help build for future trends.

Additional considerations

In addition to the physical upgrades, policy and procedure changes need to be enacted to improve desk interactions. In particular, the use of forms needs to be addressed. Forms require increased space for storage of both empty and completed forms, and added time on both the staff and patron side. Access Services is currently looking into this issue. Related to forms are the procedures at the check in desk. Much of the reason staff try to not check in items at the counter is because extra time is needed to process potential issues, and stamp. In instances where a form
is needed, patron information can be lost if the book is routed to check in. Lastly is the use of personal devices at the desk. Even if the students are moved up to the desk, interactions can be hindered if they are too busy texting.

**Limitations.**

The observation template was created using a simplistic drawing program as a blueprint of the area was not available. As a result, the scale of the layout is not correct and some items were not included on the map. Several times observers drew through obstructions or had to scribble out tracings to correct the path. Observers also drew in items to reflect the actions taking place more accurately. Additionally, some paths did not match the actual trajectory as the layout was too simple and created confusion about what the structure was. For example, one observer tracked a staff member getting the gate count and drew a line to the reserve shelves. For this reason, the path tracings are not usable and we had to rely heavily on the notes.

**Works Cited**

Alfieri, M., & Stark, J.. (2016, October 07). *Sure, We Can Circulate Your Special Equipment Collection for Faculty and Staff Only.* Presented at Ohio-Innovative Users Group, Dublin, OH.
Appendix A: Major Desk Change Layout
Appendix B: Major change detail view

Storage
- Cabinet w/ Trays
- Umbrellas, Lost & Found, Misc supplies, Misc equipment
- DVDs, and Misc equipment
- Printer
- Walkies, Weather Radio
- CSR
- Book drop

Desk
- Reserves basket
- Phone and laptop chargers, supplies
- Footbar

Supervisor's desk
- Footbar
- 2 Drawer w/ shelves
- Laptop carts / iPads on top
- Bins for: Headphones, Paging/OL slips, ILL Slips, Finished forms, Remotes

Checkin desk
- NOT TO SCALE
- Lockable
Appendix C: Minor Change Desk Layout
Appendix D: Minor change detail view
Note: the check in desk will be the same as in Appendix B