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Parent Computer Workstation in the Library Knowledge Commons

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Abstract

The number of student parents at Millersville University is unknown because Millersville University does not collect data on this population. National statistics show that 1 in 5 undergraduate students in the United States are student parents (Institute for Women's Policy Research & Ascend at the Aspen Institute, 2018). First-generation students who are also parents face the difficulties experienced by both populations and we know that Pennsylvania ranks 13 in the list of states with the most first-generation college students, with 40.2% of all undergraduates being first-generation students. Being a public university in Pennsylvania means we have a higher likelihood of enrolling first-generation college students (Hamilton, 2023). Our team researched, designed, and constructed a parent workstation on the first floor of McNairy Library, in the Knowledge Commons. This workstation provides students who are parents a safe place to set their child while they work at the computer or collaborate with classmates.

Students on the campus of Millersville University have plenty of opportunities and resources when it comes to areas to study, work, and progress their studies. As Millersville University is a public university within the Pennsylvania State System of Higher Education (PASSHE) system, 40.2% of all undergraduate students are also firstgeneration students (Hamilton, 2023). In combination with this information, nationwide statistics provide that 1 in every 5 undergraduate students are also student parents (Institute for Women's Policy Research & Ascend at the Aspen Institute, 2018). While this information is not collected through Millersville University,

the nationwide statistics can be assumed to be accurate within the university. To provide support for these student parents as they navigate through their collegiate careers, a safe place for their children to stay is necessary as they work towards their studies. The design, construction, and implementation of this parent workstation within the first floor Knowledge Commons is funded through a Micro-EPPIIC grant that was awarded after a proposal of the project was submitted. Throughout this process, Professors Auger and Dr. Egresitz facilitated the submission of the grant along with gathering materials for the project. Dr. Egresitz and Jason Gabel then assisted with

the design process, construction, and implementation of the project.

Design Processes

Once the project was approved to move forward, a group of student parents were gathered through a voluntary focus group put out by VilleDaily, a university-wide daily newsletter. This provided access to the population we would be catering towards and enabled them to have a voice throughout the design and iteration phases. Sevent student parents provided elements to include within the workstation such as stroller access, an iPad holder, a retractable shade from light, and a clean/dirty sign were to be incorporated into the final design of the workstation.



Figure 1: 3D Model of Workstation

The location and size of workstation were discussed and ultimately decided upon as those involved in the project visualized the space within the Knowledge In conjunction Commons. with information that was gained from the student parent focus group, along with size constraints from the space, a 3D model was created to represent the size and function of the workstation. A parametric modeling software called Fusion360 allowed for collaboration, and revisions done by students and professors to take in the considerations gained through the focus group. Screenshots of this 3D model were sent to all of those involved in the project, and this cemented the design for the workstation as it was ready to move forward.

Prototype

A key component of the engineering design process is to ensure that the ideation will be physically possible. In this case, a prototype was created using the correct dimensions and information from the 3D model to ensure that proper size was achieved. When creating the prototype, we met with Ms. Kimberly Auger and Mr. Andy Welaish, Director of Library Operations, to correct any final design details. Future plans were also discussed as the installation of the station would require some additional support from Library Maintenance. With the approval from the staff at McNairy Library, we began working.

Construction

To aid in construction, a group of students from the professional organization called Technology & Engineering Education Collegiate Association (TEECA). Students within TEECA aim to teach young students about hands-on skills ranging from shop classes, electronics, technical drawing, and many other skills. These students helped prepare 3/4" sheets of plywood which would make up the exterior of the workstation. First, each side of the workstation would be cut down from the sheet goods and stored away until the final construction and assembly. The tablet holder was constructed, a Clean/Dirty sign was implemented all for improvement of the environment for student parents and library staff.

The workstation is joined together with pocket holes, a woodworking technique, and hinges to accommodate a stroller to roll into the workstation.

The material we chose was ³/₄" plywood to showcase a nice exterior finish along with creating a rounded edge to ensure safety of the users on every possible corner. To serve as a final protective layer, Minwax Polycrylic Polyurethane covers the exterior surface.

Implementation

Implementation was discussed with McNairy Library as the workstation would be fastened to the concrete floor below using proper fasteners, along with a section of the unit wall mounted to ensure the safety of everyone around the area. As per the student parents' requests, a handful of entertainment pieces would be included with the workstation. Two busy-boards would be mounted on either wall to entertain the child while the parent gets some work done. Features such as a mirror, tablet holder, and retractable shade were all secured to the workstation.

Conclusion

As the project will be implemented by the end of Spring 2024, a user survey is planned for the Fall 2024 semester to showcase the results from the project. As I have overseen the progress on this project, it has become apparent to me that within a learning environment such as McNairy Library, there should be features and design intent behind the types of students that the space will be serving. Being able to provide a product for the library to use for the betterment of education cements my educational philosophy that all students should have the ability to learn regardless of their current position. With this addition of an inclusive space for student parents within the McNairy Library Knowledge Commons, Millersville University encourages students of all backgrounds to learn and grow in their and comfortable studies in a safe environment.

References

Institute for Women's Policy Research and Ascend at the Aspen Institute. (2018). Parents in college

by the numbers. https://iwpr.org/wp-content/uploads/2020/08/C481_Parents-in-College-
By-the-Numbers-Aspen-Ascend-and-IWPR.pdf

Hamilton, I. (2023, June 13). 56% of all undergraduates are first-generation college students.

https://www.forbes.com/advisor/education/online-colleges/first-generation-collegestudents-by-state/